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ABSTRACT

Compiled are abstracts and indexes to selected print and non-print materials related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements of their programs. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources" or IRIS Supplements I-XIX. (JN)

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Prepared by

EPA Instructional Resources Center
SMEAC Information Reference Center
The Ohio State University
1200 Chambers Road, Room 310
Columbus, OH 43212

as part of
Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts to Water Quality and Water Resources Materials

Supplement XX (1984)
December, 1984

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
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TABLE OF CONTENTS

Topic Page

Preface

I. General Information about Materials in IRIS 1

A. What Types of Materials Are Included in IRIS 1

B. How Are Materials Entered in IRIS 1

C. How Can a User Locate Materials in IRIS 1

1. All Materials Placed in IRIS (Water) Collection 1

2. Materials Placed in the Educational Resources Information System (ERIC) 2

II. How to Use the Compilation 4

A. Description of Information in Resumes 4

B. How to Locate Desired Materials 6

1. Subject Index 6

2. Author Index 7

III. Correcting an Existing IRIS Record 7

IV. Requests to Receive Information about IRIS and the IRC Bulletin 8

V. Requests for Assistance in Using IRIS 8

VI. How to Locate Other Relevant Educational Materials 9

VII. How to Structure a Computer Search of IRIS 15

VIII. How to Order Materials 17

IX. Resume Section 19

X. Author Index 95

XI. Subject Index 101

Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

(614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. Copies are available for purchase from the EPA Instructional Resources Center for $5.00

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1984 is $12.00 (within the U.S.). Price to Canada and Mexico is $14.00. Prices in other Countries is $18.00. Separate quarterly supplements are $4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through CompuServe. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to CompuServe and do their own searches if they desire.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Information regarding CompuServe can be obtained from the EPA/IRC.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but users can access them through Dialog, BRS, CompuServe and Systems Development Corporation (Orbit). For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for $0.06 per page plus $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
2214 North Central at Encanto
Phoenix, Arizona 85004
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are $12.00 per article. Additional copies of the same article are $2.25 each. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(800) 521-0600

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

   a. IRIS NUMBER: EW006023
   b. PUBLICATION DATE: FEB 81
   c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
   d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
   e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES

   f. DESCRIPTIVE NOTE: 30-33P.
   g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN, WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.

   h. AVAILABILITY: POLLUTION ENGINEERING; V13 N2

   a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.

   b. PUBLICATION DATE -- date material was published according to information on the material.

   c. TITLE

   d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.

   e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceeded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed. The price of the material quoted is the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.

h. AVAILABILITY -- information in this field indicates where the material can be obtained.

2. Sample resume of material entered into ERIC (Resources in Education)

Items entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664
PUBLICATION DATE: 80
TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.
DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT.

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS OF
a. WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into Resources in Education. This identification number is the number to use when ordering a document or when requesting information about a document.

b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of Resources in Education; consult the latest monthly issue for current prices. Information about ordering items can be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index or Author Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals

If you need help in using the IRIS manuals, phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

   See section VII.

2. Subscribing to CompuServe for computer searching of IRIS.

   Contact: CompuServe
   5000 Arlington Centre Boulevard
   P.O. Box 20212
   Columbus, OH 43220
   (614) 457-8600

3. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee.)

   The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

   Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center is developing some user service products in selected areas.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse on Adult, Career, and Vocational Education
The Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
School of Education, Room 2108
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois
College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management
University of Oregon
Library, Room 108
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

E. ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education
George Washington University
One Dupont Circle, NW, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources
Syracuse University
School of Education
Huntington Hall
150 Marshall Street
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges
University of California at Los Angeles (UCLA)
Mathematical Sciences Building, Room 8118
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
3520 Prospect Street, NW
Washington, DC 20007
Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teacher of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics and Environmental Education
The Ohio State University
1200 Chambers Road - Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education
American Association of Colleges for Teacher Education (AACTE)
One Dupont Circle, NW, Suite 610
Washington, DC 20036
Telephone: (202) 293-2450

School personnel at all levels, all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service (ETS)
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5176

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

P. ERIC Clearinghouse on Urban Education
Teachers College, Columbia University
Institute for Urban and Minority Education
Box 40
525 West 120th Street
New York, New York 10027
Telephone: (212) 678-3433

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences), education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

Q. Educational Resources Information Center
Central ERIC
National Institute of Education (NIE)
Information Resources Division
1200 - 19th Street, NW
Washington, DC 20208
Telephone: (202) 254-5500

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

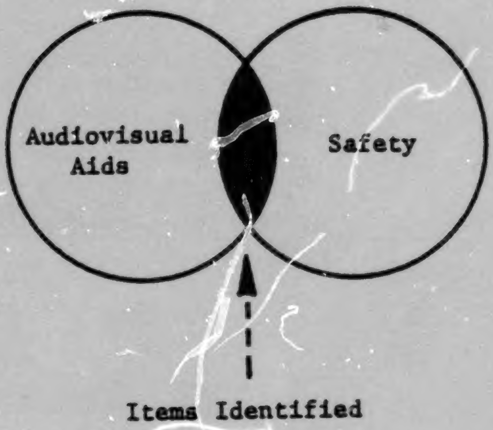
This explanation relates to the IRIS data base that can be searched through CompuServe.

A few notes about the service are important. The following fields are searchable by computer: (1) Authors, (2) Title, and (3) Subject index terms.

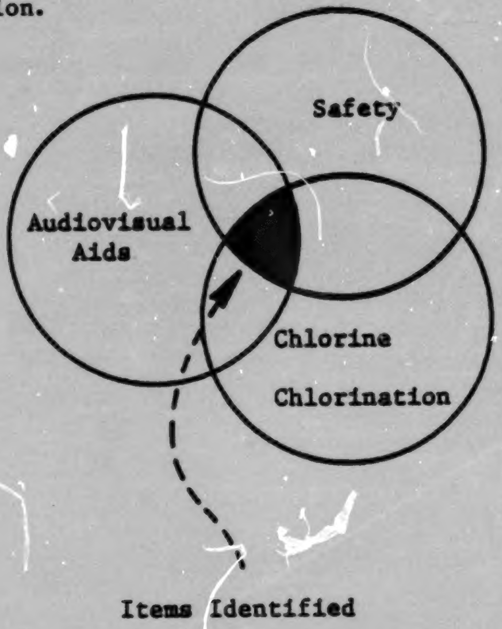
If you submit a search of IRIS through CompuServe, the program can search for the words you select in three fields. These fields are: (1) title field, (2) subject index field, and (3) author field. Several sample searches are listed below and on the following pages.

A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the subject index field would be identified by computer.

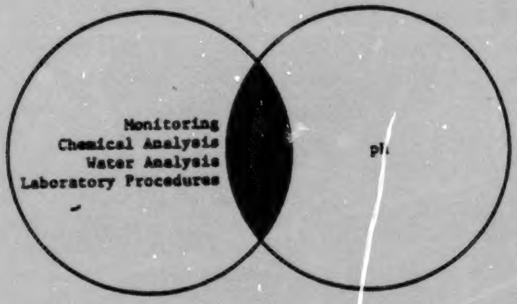


The computer program can tell you the number of items and the title of the items. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.


Safety
Audiovisual Aids
Chlorine
Chlorination
Items Identified

B. Sample 2

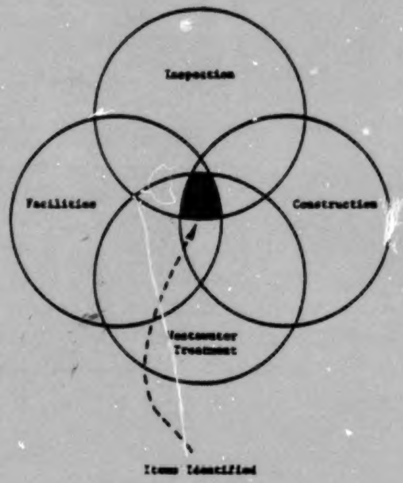
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.


Monitoring
Chemical Analysis
Water Analysis
Laboratory Procedures
pH

This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.



This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index in the IRIS compilations can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the subject field. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

A. A number of audiovisual materials can be obtained on a rental basis or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office are available from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.

B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

C. The EPA Instructional Resources Center will provide Xerox copies of materials that are not copyrighted for $1.00 per document plus $0.06 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW009163

PUBLICATION DATE: DEC 82

TITLE: POTENTIAL IMPACTS OF REDUCING THE ENVIRONMENTAL PROTECTION AGENCY'S BUDGET.

DESCRIPTOR: *CONTRACTING; *ECONOMICS; *BUDGETING; *FEDERAL ROLE; *FEDERAL PROGRAMS; *ENVIRONMENTAL PROTECTION; *MANAGEMENT; *POLLUTION CONTROL; *PROGRAM EVALUATION; *PERFORMANCE EVALUATION; *STATE ROLE; *RECOMMENDATIONS; *USEPA

DESCRIPTIVE NOTE: 60P.

ABSTRACT: THE GOVERNMENT AUDITING AGENCY WAS ASKED TO ASSESS THE IMPACT OF FISCAL YEARS 1982 AND 1983 BUDGET PROPOSALS ON THE USEPA'S PROGRAMS. INFORMATION ON THE PREDICTED IMPACT OF BUDGET CUTS ARE PRESENTED. IN ADDITION ISSUES RELATED TO: (1) REDUCTIONS OF STATE GRANT ASSISTANCE; (2) THE EVOLVING FEDERAL/STATE PARTNERSHIP; AND (3) THE USE OF PERMIT FEES/USER CHARGES TO REPLACE FEDERAL FUNDS ARE CONSIDERED. MANAGEMENT AND CONTRACTING PRACTICES OF USEPA ARE ALSO CONSIDERED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW010863

PUBLICATION DATE: SEP 83

TITLE: ASSESSMENT OF POTENTIAL ENVIRONMENTAL PROBLEMS CONCERNING WATER AVAILABILITY. PROJECT SUMMARY.

PERSONAL AUTHOR: WESNER, G. M.; BURRIS, B. E.

DESCRIPTOR: *WATER AUGMENTATION; *CONSERVATION; *ENVIRONMENTAL PROBLEMS; *TECHNOLOGY; *TRENDS; *WATER DEMAND; *WATER RESOURCES; *WATER SUPPLY; *WATER USE

DESCRIPTIVE NOTE: 2P. FOR COMPLETE REPORT PB83-226035. PRICE: $11.50

ABSTRACT: THIS STUDY ANALYZES NATIONAL SUPPLY AND DEMAND AND SUMMARIZES DATA ON ALL WATER RESOURCES REGIONS. IN ADDITION, IT REVIEWS THE TECHNOLOGY FOR WATER SUPPLY AUGMENTATION, PRESENTS EVALUATIONS OF WATER RESOURCES IN THREE DIFFERENT AREAS OF THE U.S., AND ANALYZES ISSUES, PROBLEMS, AND RESEARCH NEEDS IN WATER AVAILABILITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011107

PUBLICATION DATE: JUN 84

TITLE: STATE OF THE ENVIRONMENT. AN ASSESSMENT AT MID-DECADE.

DESCRIPTOR: *AIR; *RISK ASSESSMENT; *AGRICULTURE; *ENVIRONMENT; *FEDERAL ROLE; *HAZARDOUS WASTES; *LAND USE; *NATURAL RESOURCES; *POLICIES; *REGULATIONS; *TRENDS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 400P. PRICE: $16.00

ABSTRACT: THIS REPORT DOCUMENTS CONTINUING PROGRESS IN DEALING WITH ENVIRONMENTAL PROBLEMS IN AIR AND WATER QUALITY, HAZARDOUS WASTE, LAND USE, AGRICULTURE, AND OTHER ISSUES. IT DISCUSSES RECENT BUDGETARY, POLICY, AND OTHER INITIATIVES OF THE REAGAN ADMINISTRATION. IT ATTEMPTS TO IDENTIFY AND DEFINE LONG-TERM ENVIRONMENTAL THREATS. RISK ASSESSMENT, CROSS-MEDIA POLLUTION, WATER RESOURCES, AND INTERGOVERNMENTAL RELATIONS ARE TOPICS THAT RECEIVE DETAILED DISCUSSION.

AVAILABILITY: THE CONSERVATION FOUNDATION, 1717 MASSACHUSETTS AVE., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011112

PUBLICATION DATE: 82

TITLE: ADVANCES IN IRRIGATION. VOLUME 1.

PERSONAL AUTHOR: HILLEL, DANIEL, ED.

DESCRIPTOR: *AGRICULTURE; *CASE STUDIES; *IRRIGATION; *ECONOMICS; *MANAGEMENT; *RESEARCH; *WATER RESOURCES

DESCRIPTIVE NOTE: 320P. PRICE: $50.00; ISBN: 012-024301-6

ABSTRACT: THIS PUBLICATION IS DESIGNED TO MEET THE NEED FOR PERIODIC DESCRIPTIONS, REVIEWS, AND ANALYSES OF IMPORTANT TOPICS OF CONTEMPORARY INTEREST TO THE RAPIDLY GROWING SCIENCE AND ENGINEERING PRACTICE OF IRRIGATION. IT PROVIDES A FORUM FOR THE PRESENTATION OF VIEWS ON CURRENT IRRIGATION RESEARCH, THEORY, AND FIELD APPLICATIONS. CONTRIBUTIONS INCLUDE, BUT ARE NOT LIMITED TO, STATE-OF-THE-ART REVIEWS, CRITIQUES OF CURRENT PRACTICES, ECONOMIC ANALYSES, CASE STUDIES OF IRRIGATION IN DIFFERENT LOCATIONS, CHANGING CONCEPTS OF IRRIGATION, AND WATER-USE EFFICIENCY.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011136

TITLE: AIR AND WATER POLLUTION CONTROL, A BENEFIT-COST ASSESSMENT.

PERSONAL AUTHOR: FREEMAN, A. MYRICK, III

DESCRIPTOR: *AIR POLLUTION; *BENEFIT-COST ASSESSMENT; *AESTHICS; *ECONOMICS; *ENVIRONMENT; *PLANNING; *POLICIES; *PUBLIC HEALTH; *WATER POLLUTION

DESCRIPTIVE NOTE: 186P.

ABSTRACT: THIS PUBLICATION IS BASED ON A REPORT FOR THE U.S. COUNCIL OF ENVIRONMENTAL QUALITY RELEASED BY CEQ IN 1980. THE MAJOR PORTION OF THE BOOK (ABOUT 75%) RELATES TO AIR POLLUTION, WHILE THE REMAINING PART RELATES TO WATER POLLUTION CONTROL AND BENEFITS.

AVAILABILITY: WILEY-INTERSCIENCE SERIES OF TEXTS AND MONOGRAPHS, JOHN WILEY AND SONS, INC., 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW011141

PUBLICATION DATE: 83

TITLE: TRAINING THE TRAINER: RESEARCH AND PREPARATION. VIDEOTAPE 3401.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COURSE OUTLINES; *INSTRUCTION; *INSTRUCTIONAL MATERIALS; *JOB ANALYSIS; *PLANNING; *POSTSECONDARY EDUCATION; *TASK ANALYSIS; *TRAINING; *VIDEOTAPES

DESCRIPTIVE NOTE: VIDEOCASSETTE. ALSO INCLUDES STUDENT WORKBOOK AND LESSON PLANS. PRICE: $650.00

ABSTRACT: THIS PROGRAM IS ONE OF A FOUR PART SERIES. THE PROGRAM CONTAINS FOUR LESSONS: (1) THE TRAINERS ROLE; (2) JOB ANALYSIS; (3) TASK ANALYSIS; AND (4) THE COURSE OUTLINE. THE PROGRAM INCLUDES VIDEOTAPES, STUDENT WORKBOOKS, AND AN INSTRUCTOR GUIDE.

AVAILABILITY: LEIGHTON AND KIDD, CONSULTING ENGINEERS, 121 KENNEDY AVE, TORONTO, ONTARIO, CANADA M6S 2X8

IRIS ACCESSION NUMBER: EW011156

PUBLICATION DATE: MAY 84

TITLE: REPORT ON ANALYTICAL METHODOLOGY FOR PURGEABLE AND SEMIVOLATILE COMPONENTS IN LEACHATES AND SOLID WASTES. PROJECT SUMMARY.

PERSONAL AUTHOR: WARNER, J. S.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EVALUATION; *LABORATORY PROCEDURES; *LEACHATES; *ORGANIC COMPOUNDS; *PERFORMANCE EVALUATION; *RECOMMENDATIONS; *SOLID WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 3P. PRICE: $11.50. ORDER NO.: COMPLETE REPORT: PB84-180157

ABSTRACT: THIS STUDY WAS DESIGNED TO EVALUATE METHODS FOR DETERMINING PURGEABLE AND SEMIVOLATILE ORGANIC COMPOUNDS IN SOLID WASTES. RESULTS OF THE STUDIES ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011198

PUBLICATION DATE: 84

TITLE: CALIFORNIA WATER TREATMENT FACILITIES.

DESCRIPTOR: *CALIFORNIA; *DRINKING WATER; *COAGULATION; *FILTRATION; *FILTERS; *OPERATIONS (WATER); *PROGRAM DESCRIPTIONS; *SEDIMENTATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 207P. PRICE: $13.48

ABSTRACT: LISTED ARE WATER TREATMENT PLANTS IN CALIFORNIA AS OF 7/5/84. INFORMATION IS INCLUDED ON REASONS FOR TREATMENT, TREATMENT AGENTS USED, FEED EQUIPMENT, USE OF COAGULATION, TYPE OF SEDIMENTATION, TYPE OF FILTRATION, TYPE OF FILTER MEDIA, AND FILTER RATE.

AVAILABILITY: EPA/IRC, 1200 CHAMBERS ROAD, 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011201

PUBLICATION DATE: 83

TITLE: PRUDENT PRACTICES FOR DISPOSAL OF CHEMICALS FROM LABORATORIES.

DESCRIPTOR: *CHEMICALS; *CHEMICAL STORAGE; *HAZARDOUS WASTES; *LABORATORIES; *MANAGEMENT; *REGULATIONS; *SAFETY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 282P. PRICE: $16.50

ABSTRACT: THIS IS A COMPREHENESIVE GUIDE TO RECOMMENDED PRACTICES AND CURRENT GOVERNMENT REGULATIONS FOR MANAGING CHEMICALS FOR DISPOSAL FROM LABORATORIES.

AVAILABILITY: NATIONAL ACADEMY PRESS, 2101 CONSTITUTION AVE., N.W., WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW011347

PUBLICATION DATE: DEC 78

TITLE: REPORT TO CONGRESS ON INDUSTRIAL COST RECOVERY. VOLUME I - EXECUTIVE SUMMARY.

DESCRIPTOR: *CONGRESSIONAL REPORTS; *USEPA; *FEDERAL PROGRAMS; *FACILITIES; *LEGISLATION; *INDUSTRIAL COST RECOVERY; *INDUSTRY; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *POLLUTION CONTROL; *PROGRAM EVALUATION; *USER CHARGES; *WATER CONSERVATION; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 29P. ORDER NO.: PB 292171

ABSTRACT: THE INDUSTRIAL COST RECOVERY (ICR) OF THE FEDERAL WATER POLLUTION CONTROL ACT WAS EXAMINED TO DETERMINE THE EFFICIENCY OF, AND NEED FOR THE ICR PROVISION. THE FINAL

REPORT CONSISTS OF SEVEN VOLUMES; THIS IS VOLUME I, THE EXECUTIVE SUMMARY. BASED ON THE DATA AVAILABLE AT THE TIME THE STUDY DETERMINED THAT THE ICR PROVISIONS WERE NOT EFFECTIVE IN ACCOMPLISHING THEIR LEGISLATIVE PURPOSES. FINDINGS, TRENDS, AND CONCLUSIONS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011351

PUBLICATION DATE: 83

TITLE: ACTIVATED SLUDGE PROCESS: FUNDAMENTALS OF OPERATION.

PERSONAL AUTHOR: JUNKINS, RANDY; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *INSTRUCTIONAL MATERIALS; *MONITORING; *OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *PROCESS DESCRIPTIONS; *PROCESS CONTROL; *PLANT STARTUP; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 136P. ORDER NO.: 250-40506-7. PRICE: $14.95

ABSTRACT: THIS PUBLICATION PRESENTS FUNDAMENTALS OF THE ACTIVATED SLUDGE PROCESS. TOPICS PRESENTED INCLUDE: (1) PROCESS MECHANICS; (2) FACTORS AFFECTING OPERATION; (3) PROCESS MODIFICATIONS; (4) PROCESS MONITORING; (5) OPERATIONAL CONTROL; (6) TROUBLESHOOTING; AND (7) PLANT START-UP.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE, STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011363

PUBLICATION DATE: JUN 84

TITLE: EPA METHOD STUDY 22 METHOD 612-CHLORINATED HYDROCARBONS.

PERSONAL AUTHOR: HALL, JACK R.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHLORINATED HYDROCARBONS; *EPA METHOD STUDY; *HYDROCARBONS; *LABORATORY PROCEDURES; *METHOD STUDY; *ORGANIC COMPOUNDS; *USEPA; *WASTEWATER

DESCRIPTIVE NOTE: [illegible] ORDER NO.: PB84-187772. COST FOR COMPLETE REPORT: $[illegible]

ABSTRACT: AN INTERLABORATORY STUDY IN WHICH 20 LABORATORIES PARTICIPATED WAS CONDUCTED TO PROVIDE A PRECISION AND ACCURACY STATEMENT FOR THE PROPOSED EPA METHOD 612-CHLORINATED HYDROCARBONS FOR MEASURING THE CATEGORY 3 CHEMICALS. RESULTS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011412

PUBLICATION DATE: 84

TITLE: BASIC GAS CHROMATOGRAPHY. SECOND EDITION.

PERSONAL AUTHOR: MCNAIR, HAROLD M.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHROMATOGRAPHY; *CHEMISTRY; *GAS CHROMATOGRAPHY; *LABORATORY PROCEDURES; *LABORATORY EQUIPMENT; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *TRAINING

DESCRIPTIVE NOTE: 218P. PRICE: $325.00. INCLUDES SIX AUDIOTAPE CASSETTES AND A 218-PAGE MANUAL.

ABSTRACT: THIS COURSE PROVIDES A BASIC UNDERSTANDING OF ONE OF THE MOST WIDELY USED TECHNIQUES IN THE ANALYTICAL LABORATORY. IT ALSO OFFERS IMPORTANT INSIGHTS INTO THE LATEST DEVELOPMENTS IN SUCH AREAS AS CAPILLARY COLUMNS, QUANTITATIVE ANALYSIS, AND SELECTIVE DETECTORS. THE COURSE STARTS BY DETAILING THE PRINCIPLES REQUIRED TO UNDERSTAND AND IMPROVE GC SEPARATIONS AND EMPHASIZES METHODS OF SELECTING EQUIPMENT AND OPERATING PARAMETERS TO OBTAIN GOOD SEPARATIONS. IT THEN PROGRESSES TO MANUAL AND AUTOMATED QUALITATIVE AND QUANTITATIVE ANALYSIS PROCEDURES TO FACILITATE CORRECT INTERPRETATION OF CHROMATOGRAPHIC DATA. ADVANCED SECTIONS INCLUDE MATERIAL ON SPECIAL LIQUID PHASES, CAPILLARY COLUMNS, TEMPERATURE PROGRAMMING AND SELECTIVE DETECTORS. AS A LEARNING AID, SAMPLE SEPARATIONS ARE INCLUDED THROUGHOUT THE COURSE. THE EXTENSIVE BIBLIOGRAPHY AND GLOSSARY IN THE COURSE MANUAL MAKE IT A VALUABLE REFERENCE FOR FREQUENT, CONVENIENT USE AFTER THE COURSE IS COMPLETED.

AVAILABILITY: ACS AUDIO COURSES, DISTRIBUTION OFFICE, DEPT. 51001, 1155 SIXTEENTH STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011413

PUBLICATION DATE: 84

TITLE: COLUMN SELECTION IN GAS CHROMATOGRAPHY.

PERSONAL AUTHOR: MCNAIR, HAROLD M.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COLUMN SELECTION; *GAS CHROMATOGRAPHY; *CHEMISTRY; *CHROMATOGRAPHY; *LABORATORY PROCEDURES; *LABORATORY EQUIPMENT; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *TRAINING

DESCRIPTIVE NOTE: 140P. PRICE: $265.00. INCLUDES FOUR AUDIOTAPE CASSETTES AND A 140-PAGE MANUAL.

ABSTRACT: THIS COURSE EMPHASIZES THE SELECTION PROCESS FROM BOTH A THEORETICAL AND PRACTICAL POINT OF VIEW. TOPICS DISCUSSED INCLUDE CRITERIA FOR EVALUATING AND CHOOSING LIQUID PHASES, THE MOST COMMONLY USED LIQUID PHASES, AND THE

CRITERIA FOR CHOOSING SOLID SUPPORTS AND THE RESULTS YOU WILL OBTAIN. COLUMN OPERATING PARAMETERS SUCH AS FLOW RATE, TEMPERATURE, LENGTH, DIAMETER, AND LIQUID LOADING ARE ALSO DISCUSSED. A SHORT SET OF PROBLEMS FOLLOWS MOST SECTIONS OF THE COURSE; NO BACKGROUND IN HIGHER MATHEMATICS IS REQUIRED. PREVIOUS EXPERIENCE IN GAS CHROMATOGRAPHY IS NOT ESSENTIAL FOR THIS COURSE.

AVAILABILITY: ACS AUDIO COURSES, DISTRIBUTION OFFICE, DEPT. 51001, 1155 SIXTEENTH STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011414

PUBLICATION DATE: 84

TITLE: MODERN LIQUID CHROMATOGRAPHY, SECOND EDITION.

PERSONAL AUTHOR: SNYDER, LLOYD R.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHROMATOGRAPHY; *CHEMISTRY; *LABORATORY PROCEDURES; *LABORATORY EQUIPMENT; *LIQUID CHROMATOGRAPHY; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *TRAINING

DESCRIPTIVE NOTE: 416P. INCLUDES TWELVE AUDIOTAPE CASSETTES AND A 416-PAGE MANUAL. PRICE: $445.00

ABSTRACT: THIS IN-DEPTH COURSE OFFERS A THOROUGH EXPOSURE TO LC THEORY, METHODS, AND INTERPRETATION. PARTICIPANTS WILL LEARN HOW TO ASSEMBLE EQUIPMENT, PACK COLUMNS, CHOOSE SOLVENTS, RUN A SAMPLE PROPERLY, AND INTERPRET THE DATA ACCURATELY. FUNDAMENTALS OF RESOLUTION, SEPARATION CONTROL, AND QUANTITATION ARE ALSO COVERED. A MAJOR PART OF THE COURSE IS DEVOTED TO THE SIX MOST WIDELY USED TYPES OF LIQUID CHROMATOGRAPHY: BONDED PHASE, LIQUID-LIQUID, LIQUID-SOLID, SIZE EXCLUSION, ION-EXCHANGE, AND ION-PAIR. A SYSTEMATIC APPROACH TO SELECTING THE PROPER LC METHOD FOR ANY GIVEN ANALYSIS MEANS GREATER ACCURACY AND ECONOMY IN DAY-TO-DAY OPERATIONS.

AVAILABILITY: ACS AUDIO COURSES, DISTRIBUTION OFFICE, DEPT. 51001, 1155 SIXTEENTH STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011415

PUBLICATION DATE: 84

TITLE: MODERN LIQUID CHROMATOGRAPHY, SPECIAL TOPICS.

PERSONAL AUTHOR: KIRKLAND, J. J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHROMATOGRAPHY; *CHEMISTRY; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY EQUIPMENT; *LIQUID CHROMATOGRAPHY; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *TRAINING

DESCRIPTIVE NOTE: 320P. PRICE: $385.00. INCLUDES SEVEN AUDIOTAPE CASSETTES AND A 320-PAGE MANUAL.

ABSTRACT: THIS COURSE SUPPLEMENTS MODERN LIQUID CHROMATOGRAPHY, 2ND ED. TO DERIVE MAXIMUM BENEFIT FROM THIS ADVANCED COURSE, USERS SHOULD EITHER LISTEN TO THE BASIC LC COURSE FIRST OR HAVE PRACTICAL, WORKING EXPERIENCE WITH LC. SPECIAL TOPICS BEGINS WITH AN INTRODUCTION TO TROUBLESHOOTING EQUIPMENT PROBLEMS AND DIAGNOSING THE CAUSES OF PECULIAR BAND SHAPES. THE AUTHORS THEN DISCUSS ADVANCED TECHNIQUES THAT CAN BE APPLIED TO DIFFICULT SEPARATIONS. FOR EACH TECHNIQUE, STUDENTS WILL LEARN HOW TO CHOOSE AND APPLY THE TECHNIQUE TO COMMON SEPARATIONS. NUMEROUS EXAMPLES ARE PROVIDED TO REINFORCE EACH TECHNIQUE PRESENTED. THE COURSE CONCLUDES WITH A DISCUSSION OF SPECIAL PROBLEMS FACED IN DIFFICULT SEPARATIONS AND NEW APPROACHES TO SYSTEMATIC OPTIMIZATION OF RESOLUTION. TOGETHER BOTH THE BASIC AND ADVANCED LC COURSES PROVIDE A UNIQUE OPPORTUNITY TO STUDY EVERY IMPORTANT ASPECT INVOLVED IN DEVELOPING METHODS FOR AND RUNNING AN LC LABORATORY.

AVAILABILITY: ACS AUDIO COURSES, DISTRIBUTION OFFICE, DEPT. 51001, 1155 SIXTEENTH STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011417

PUBLICATION DATE: 84

TITLE: DESIGN AND CONSTRUCTION OF SMALL WATER SYSTEMS - A GUIDE FOR MANAGERS.

DESCRIPTOR: *DESIGN; *HANDBOOKS; *FACILITIES; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *REGULATIONS; *RURAL AREAS; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 120P. PRICE: MEMBERS, $13.65; NONMEMBERS, $18.85.

ABSTRACT: THIS HANDBOOK PROVIDES STEP-BY-STEP DETAILS FOR DESIGNING A SMALL WATER SYSTEM. SECTIONS INCLUDE: (1) SELECTING A WATER SOURCE; (2) DRINKING WATER REGULATIONS; (3) GROUNDWATER AS A WATER-SUPPLY SOURCE; (4) SURFACE WATER AS A WATER-SUPPLY SOURCE; (5) WATER TREATMENT; AND (6) PUMPING, DISTRIBUTION, AND STORAGE.

AVAILABILITY: AWWA DATA PROCESSING DEPARTMENT, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW011418

PUBLICATION DATE: 84

TITLE: FLUORIDATION LIBRARY SET.

DESCRIPTOR: *BIBLIOGRAPHIES; *DRINKING WATER; *FLUORIDATION; *OPERATIONS (WATER); *PUBLIC HEALTH; *STANDARDS; *WATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $24.95. EACH SET INCLUDES: WATER FLUORIDATION PRINCIPLES AND PRACTICES; AWWA FLUORIDE CHEMICAL STANDARDS; FLUORIDATION BIBLIOGRAPHY; AND ARTICLE REPRINTS.

ABSTRACT: THIS SET IS AWWA'S FLUORIDATION SET OF MATERIALS. INCLUDED ARE THE FOLLOWING ITEMS: (1) WATER FLUORIDATION PRINCIPLES AND PRACTICES (M4); (2) B701-84, AWWA STANDARD FOR SODIUM FLUORIDE; (3) B702-84, AWWA STANDARD FOR SODIUM SILICOFLUORIDE; (4) B703-84, AWWA STANDARD FOR FLUOSILICIC ACID; (5) FLUORIDATION BIBLIOGRAPHY; AND (6) AWWA ARTICLE REPRINTS INCLUDING: A FLUORIDE OVERFEED INCIDENT AT HARBOR SPRINGS, MICH., FLUORIDATION INSTALLATION AND OPERATION, FLUORIDE COMPOUNDS USED TO PREVENT TOOTH DECAY, AND EVALUATING FLUORIDE CONCENTRATIONS IN COMMUNITY WATER SUPPLIES.

AVAILABILITY: AWWA COMPUTER SERVICES, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW011442

TITLE: DESIGN CONSIDERATIONS IN WATERWORKS PUMP SELECTION.

PERSONAL AUTHOR: KRUTZSCH, WILLIAM C.

DESCRIPTOR: *DESIGN; *EQUIPMENT SELECTION; *PERFORMANCE EVALUATION; *PUMPS; *WATERWORKS; *WATER SUPPLY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: R-8-R-10, R-12P. REFERENCE HANDBOOK 84

ABSTRACT: DESCRIBED ARE A NUMBER OF VARIABLES TO CONSIDER IN SELECTION OF PUMPS FOR WATERWORKS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011443

TITLE: GUIDE TO PRIMING PUMPS.

PERSONAL AUTHOR: FRENCH, WILLIAM W.

DESCRIPTOR: *EQUIPMENT; *MAINTENANCE; *PRIMING; *PUMPS

DESCRIPTIVE NOTE: R-14-R-15, R-18P. REFERENCE HANDBOOK 84

ABSTRACT: DESCRIBED ARE METHODS OF PRIMING PUMPS. DIAGRAMS ARE INCLUDED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011444

TITLE: INFORMATION AND TABLES RELATED TO WATER AND WASTEWATER TREATMENT OPERATIONS.

DESCRIPTOR: *EQUIPMENT; *FLOW METERS; *FLUMES; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *PIPES; *PUMPS; *WEIRS

DESCRIPTIVE NOTE: R-19-R-32P. REFERENCE HANDBOOK 84

ABSTRACT: THIS SECTION CONTAINS SEVERAL TABLES AND CHARTS RELATED TO WATER AND WASTEWATER OPERATIONS. INCLUDED IS INFORMATION ON PUMPS, FLOW METERS, PIPE FRICTION LOSS, CAPACITY TABLES FOR WEIRS AND FLUMES, AND DATA ON DUCTILE IRON PIPE.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011445

TITLE: HYDRAULIC CONSIDERATIONS IN GAS FEEDER INSTALLATIONS.

DESCRIPTOR: *DESIGN; *EQUIPMENT; *GAS FEEDERS; *HYDRAULICS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: R-34-R36P. REFERENCE HANDBOOK 84

ABSTRACT: DESCRIBED ARE HYDRAULIC VARIABLES TO CONSIDER IN GAS FEEDER INSTALLATIONS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011446

TITLE: A PRESSURE FILTER REVIEW.

DESCRIPTOR: *EQUIPMENT; *FILTERS; *PRESSURE FILTERS; *WATER TREATMENT

DESCRIPTIVE NOTE: R-40-R41P. REFERENCE HANDBOOK 84

ABSTRACT: PRESSURE FILTERS FOR WATER TREATMENT ARE DISCUSSED. ADVANTAGES AND CHARACTERISTICS OF EACH ARE PRESENTED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011447

TITLE: INFORMATION AND TABLES RELATED TO WATER AND WASTEWATER TREATMENT OPERATIONS.

DESCRIPTOR: *CHEMICALS; *CONVERSION TABLES; *EQUIPMENT; *FILTRATION; *GLOSSARIES; *MEASUREMENT; *METERS; *MICROCOMPUTERS; *VOCABULARY; *WATER TREATMENT

DESCRIPTIVE NOTE: R-42-R-52P. REFERENCE HANDBOOK 84

ABSTRACT: THIS SECTION OF THE JOURNAL CONTAINS INFORMATION AND TABLES RELATED TO WATER AND WASTEWATER TREATMENT. INCLUDED ARE A FILTRATION GLOSSARY, INFORMATION ON WATER METERS, WATER TREATMENT INFORMATION, UNIT CONVERSION TABLES, AND A MICROCOMPUTER GLOSSARY.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011448

TITLE: SOME BASIC SAFETY RULES AND SAFE PRACTICES.

DESCRIPTOR: *ACCIDENT PREVENTION; *EQUIPMENT; *MATERIAL HANDLING; *SAFETY; *TOOLS

DESCRIPTIVE NOTE: R-53-R-54, R-94P. REFERENCE HANDBOOK 84

ABSTRACT: THIS ARTICLE PRESENTS SOME BASIC SAFETY RULES AND SAFE PRACTICES SELECTED FROM THE DALLAS WATER UTILITIES SAFE PRACTICES HANDBOOK.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N8

IRIS ACCESSION NUMBER: EW011511

PUBLICATION DATE: 82

TITLE: LOVE YOUR BACK.

DESCRIPTOR: *ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; *HEALTH EDUCATION; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SAFETY; *SLIDES; *VIDEOTAPES

DESCRIPTIVE NOTE: AVAILABLE IN SLIDES AND VIDEOTAPE (SLIDES: $100; TAPE: $120). WORKSHOP LEADER'S GUIDE AND HANDOUTS ARE INCLUDED.

ABSTRACT: THIS EMPLOYEE EDUCATION AND TRAINING PROGRAM IS DESIGNED TO REDUCE THE INCIDENCE OF BACK INJURY AT WORK AND AT HOME. HOLISTIC IN APPROACH, IT DEALS WITH THE RELATIONSHIP BETWEEN THE ANATOMY OF THE BACK, LIFTING METHODS, PROPER MATERIALS HANDLING TECHNIQUES, AND THE ROLE OF GOOD NUTRITION AND ADEQUATE EXERCISE. THE AUDIOVISUAL PROGRAM ALSO COMES WITH A LEADER'S GUIDE AND HANDOUTS. THE MATERIALS ARE AVAILABLE IN ENGLISH OR SPANISH.

AVAILABILITY: FIREMAN'S FUND RISK MANAGEMENT SERVICES, BOX 3890, SAN RAFAEL, CA 94911

IRIS ACCESSION NUMBER: EW011525

PUBLICATION DATE: MAR 84

TITLE: INSTITUTIONAL RESPONSES TO CONTAMINATION OF GROUND WATER USED FOR PUBLIC WATER SUPPLIES: IMPLICATIONS FOR EPA R&D PROGRAMS. PROJE

PERSONAL AUTHOR: BRETON, THEODORE R.; PAYNE, STEVEN N.

DESCRIPTOR: *DRINKING WATER; *CASE STUDIES; *CONTAMINATION; *GROUNDWATER; *MONITORING; *ORGANIC COMPOUNDS; *RESEARCH; *RESEARCH NEEDS; *TRENDS; *WATER POLLUTION CONTROL; *WATER RESOURCES

DESCRIPTIVE NOTE: 2P. FOR COMPLETE REPORT: ORDER NO. PB84-140326. PRICE: $19.00.

ABSTRACT: THE OBJECTIVES OF THIS GROUND-WATER ASSESSMENT WERE THREEFOLD: (1) TO IMPROVE THE USEPA'S UNDERSTANDING OF PROBLEMS FACED BY THE STATES AND MUNICIPALITIES IN ENSURING THAT GROUNDWATER IS SAFE FOR DRINKING; (2) TO PROVIDE GUIDANCE TO EPA IN SETTING RESEARCH AND DEVELOPMENT PRIORITIES IN GROUND WATER AND DRINKING WATER AREAS; AND (3) TO PRESENT DATA ON THE ORIGINAL AND FINAL SETS OF GROUND-WATER CONTAMINATION CASES EXAMINED, WITH SOURCE LISTS FOR CONTACTS AT EACH ORGANIZATION DEALING WITH THE PROBLEM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011526

PUBLICATION DATE: JUN 84

TITLE: EPA METHOD STUDY 14 METHOD 604-PHENOLS. PROJECT SUMMARY.

PERSONAL AUTHOR: HALL, JACK R.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EPA; *LABORATORY PROCEDURES; *METHOD-604; *PERFORMANCE EVALUATION; *PHENOLS; *USEPA; *WASTEWATER TREATMENT; *WATER TREATMENT; *METHOD STUDY

DESCRIPTIVE NOTE: 7P. PRICE CODE: FOR COMPLETE REPORT PB84-196211. PRICE: $22.00

ABSTRACT: THIS REPORT DESCRIBES THE INTERLABORATORY STUDY OF METHOD 604-PHENOLS. THE PRIMARY OBJECTIVE OF THE STUDY WAS TO DETERMINE ACCURACY, OVERALL PRECISION, SINGLE-ANALYST PRECISION, AND EFFECT OF WATER TYPE ON ACCURACY AND PRECISION. CONCLUSIONS AND RECOMMENDATIONS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011535

PUBLICATION DATE: 83

TITLE: ANNUAL REPORT, 1983. TO THE PRESIDENT AND CONGRESS.

DESCRIPTOR: *ACID RAIN; *ANNUAL REPORTS; *ENVIRONMENTAL IMPACTS; *MONITORING; *NAPAP; *POLLUTION CONTROL; *RESEARCH; *SOURCES; *RESEARCH REVIEWS

DESCRIPTIVE NOTE: 75P.

ABSTRACT: THE GOAL OF THE NATIONAL ACID PRECIPITATION ASSESSMENT PROGRAM IS TO DEVELOP AND PROGRESSIVELY IMPROVE ON AN OBJECTIVE AND COMPREHENSIVE INFORMATION BASE FOR USE BY DECISIONMAKERS. THIS REPORT OUTLINES ACCOMPLISHMENTS OF THE PROGRAM DURING 1983, SUMMARIZES THE CURRENT STATE OF SCIENTIFIC KNOWLEDGE FOR DECISIONMAKERS, AND DESCRIBES THE OUTLOOK FOR CONTINUED PROGRESS BY THE FEDERALLY SPONSORED RESEARCH EFFORT ON ACID DEPOSITION.

AVAILABILITY: EXECUTIVE DIRECTOR - NATIONAL ACID

PRECIPITATION ASSESSMENT PROGRAM, C/O EOP PUBLICATIONS (ROOM 2200), 726 JACKSON PLACE, NW, WASHINGTON, DC 20503

IRIS ACCESSION NUMBER: EW011540

TITLE: RISK & DECISION ANALYSIS FOR HAZARDOUS WASTE DISPOSAL - 1981.

DESCRIPTOR: *DECISION MAKING; *HAZARDOUS MATERIALS; *LAND APPLICATION; *MANAGEMENT; *MONITORING; *RISK ASSESSMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 216P. PRICE: $25.00 SOFTCOVER. ORDER NO.: RDA 1

ABSTRACT: THIS PUBLICATION INCLUDES THE INFORMATION ON RISK/DECISION ANALYSIS FOR MANAGEMENT OF HAZARDOUS MATERIALS. ALSO INCLUDED IS INFORMATION ON FATE; MONITORING; LAND APPLICATION; DISPOSAL AND MOVEMENT OF HAZARDOUS MATERIALS.

AVAILABILITY: HAZARDOUS MATERIALS CONTROL RESEARCH INSTITUTE, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011554

PUBLICATION DATE: AUG 83

TITLE: POLICIES AND PROCEDURES FOR LAND TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: FLEMING, W. L.; AND OTHERS

DESCRIPTOR: *DESIGN; *LAND APPLICATION; *LAND TREATMENT; *MANAGEMENT; *OPERATIONS (WASTEWATER); *POLICIES; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-190230

ABSTRACT: THE FIRST OF A SERIES OF FIVE REPORTS DEALING WITH THE LAND (AND WETLAND) TREATMENT OF WASTEWATER AND SLUDGE PREPARED UNDER THE GENERAL GUIDANCE OF A TASK FORCE REPRESENTING THE NORTH CAROLINA AGRICULTURAL RESEARCH AND EXTENSION SERVICES, WATER RESOURCES RESEARCH INSTITUTE, DIVISION OF ENVIRONMENTAL MANAGEMENT, AND DIVISION OF HEALTH SERVICES. DRAFT REPORTS WERE PRESENTED AT A REGIONAL WORKSHOP FOR CRITIQUE AND INPUT FROM OTHER SOURCES. POLICIES AND PROCEDURES FOR LAND TREATMENT OF WASTEWATER INTRODUCES THE SERIES AND DISCUSSES PUBLIC ACCEPTANCE, NORTH CAROLINA STATUTES AND REGULATIONS, ADMINISTRATIVE PERMITTING PROCEDURES AND REQUIREMENTS, AND THE AVAILABILITY OF ADVISORY AND TECHNICAL ASSISTANCE. THE SERIES AS A WHOLE PROVIDES GENERAL GUIDELINES FOR THE DESIGN AND MANAGEMENT OF LAND TREATMENT SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011555

PUBLICATION DATE: AUG 83

TITLE: DISPOSAL OF SECONDARILY TREATED MUNICIPAL SEWAGE BY SUBSURFACE IRRIGATION.

PERSONAL AUTHOR: STEWART, L. E.; AND OTHERS

DESCRIPTOR: *IRRIGATION; *LAND TREATMENT; *OPERATIONS (WASTEWATER); *SUBSURFACE IRRIGATION; *TERTIARY TREATMENT; *WASTEWATER DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 24P. PRICE CODE: PC A02/MF A01

ABSTRACT: TRICKLE IRRIGATION TUBING WAS USED FOR LOW PRESSURE, UNIFORM SUBSURFACE DISTRIBUTION OF CHLORINATED SEWAGE EFFLUENT FOR LAND TREATMENT AND DISPOSAL. THE EFFLUENT WAS DOMESTIC, SECONDARILY TREATED WATER FROM A SEPTIC TANK AND SAND FILTER SYSTEM. THE LAND PROVIDED TERTIARY TREATMENT OF THE WATER THROUGH GROWING PLANTS, EVAPORATION, AND GROUNDWATER RECHARGE. THIS METHOD ELIMINATED A POINT SOURCE DISCHARGE INTO A STREAM AND APPEARS TO HAVE FUTURE APPLICATION. THIS EXPERIMENTAL SYSTEM PERFORMED WELL IN THE FALL OF 1982 AND, WITH MODIFICATION, IN 1983. ALTHOUGH THE ROWCROP TRICKLE IRRIGATION TUBING (TAPE) APPEARED TO FUNCTION SATISFACTORILY IN A HEAVY SOIL CONTAINING STONES, RIGID WALL TRICKLE TUBING MAY BE ADVANTAGEOUS IN PROBLEM SOILS OR AT DEEPER DEPTHS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011556

PUBLICATION DATE: DEC 83

TITLE: RESULTS OF THE NATIONWIDE URBAN RUNOFF PROGRAM. VOLUME 3. DATA APPENDIX.

PERSONAL AUTHOR: ATHAYDE, D. N.; AND OTHERS

DESCRIPTOR: *MONITORING DATA; *NATIONWIDE URBAN RUNOFF PROGRAM; *POLLUTION CONTROL; *STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *WATER QUALITY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 209P. PRICE CODE: PC A10/MF A01. ORDER NO.: PB84-185578

ABSTRACT: THIS VOLUME CONTAINS MONITORING DATA ACCUMULATED DURING THE PROJECT PERIOD, USED IN DEVELOPING THE REPORT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011557

PUBLICATION DATE: SEP 82

TITLE: RESULTS OF THE NATIONWIDE URBAN RUNOFF PROGRAM.

VOLUME 2. APPENDICES.

PERSONAL AUTHOR: ATHAYDE, D. N.; AND OTHERS

DESCRIPTOR: *DATA ANALYSIS; *NATIONWIDE URBAN RUNOFF PROGRAM; *POLLUTION CONTROL; *SURFACE RUNOFF; *URBAN AREAS; *WATER QUALITY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 868P. PRICE CODE: PC A99/MF E04. ORDER NO.: PB84-185560

ABSTRACT: THIS VOLUME OF APPENDICES INCLUDES AN INDIVIDUAL APPENDIX ON EACH OF THE FOLLOWING: SELECTED SITE CHARACTERISTICS; SELECTED EVENT DATA; DATA ANALYSIS METHODOLOGIES; WET WEATHER WATER QUALITY CRITERIA; PROJECT SUMMARIES; PRIORITY POLLUTANT REPORT; PROJECT DESCRIPTIONS; ORD REPORT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011558

PUBLICATION DATE: DEC 83

TITLE: RESULTS OF THE NATIONWIDE URBAN RUNOFF PROGRAM. VOLUME 1. FINAL REPORT.

PERSONAL AUTHOR: ATHAYDE, D. N.; AND OTHERS

DESCRIPTOR: NATIONWIDE URBAN RUNOFF PROGRAM; *POLLUTION CONTROL; *STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *WATER QUALITY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 200P. PRICE CODE: PC A09/MF A01. ORDER NO.: PB84-185552

ABSTRACT: THIS VOLUME OF THE REPORT INCLUDES INFORMATION ON THE BACKGROUND AND URBAN RUNOFF PERSPECTIVES, STORMWATER MANAGEMENT, METHODS OF ANALYSIS, CHARACTERISTICS OF URBAN RUNOFF, RECEIVING WATER QUALITY EFFECTS OF URBAN RUNOFF, RUNOFF CONTROLS, AND CONCLUSIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011559

PUBLICATION DATE: 81

TITLE: POWER PLANT INSTRUMENTATION FOR MEASUREMENT OF HIGH-PURITY WATER QUALITY. STP 742.

PERSONAL AUTHOR: LANE/OTTEN, ED.

DESCRIPTOR: *INSTRUMENTATION; *LABORATORY PROCEDURES; *MEASUREMENT; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SAMPLING; *WATER QUALITY

DESCRIPTIVE NOTE: 235P. PRICE: $26.50; MEMBER PRICE $21.20. PCN: 04-742000-16

ABSTRACT: THIS PUBLICATION PRESENTS TECHNIQUES EMPLOYING VARIOUS METHODS OF MEASUREMENT, SUCH AS ION CHROMATOGRAPHY, ATOMIC ABSORPTION, SPECIFIC ION ELECTRODE, ION EXCHANGE COLUMNS, ELECTRICAL CONDUCTIVITY, A GRAVIMETRIC METHOD, DIFFERENTIAL PULSE POLAROGRAPHY AND OTHERS. DISCUSSIONS ON METHODS OF SAMPLING, DESIRED POINTS OF SAMPLING, AND OTHER DETAILS ARE INCLUDED.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011560

PUBLICATION DATE: 81

TITLE: ANALYSIS OF WATERS ASSOCIATED WITH ALTERNATIVE FUEL PRODUCTION. STP 720.

DESCRIPTOR: *ALTERNATIVE FUEL PRODUCTION; *FUELS; *INORGANIC COMPOUNDS; *ORGANIC COMPOUNDS; *STANDARDS; *WATER; *WATER ANALYSIS; *WATER CHARACTERISTICS

DESCRIPTIVE NOTE: 205P. PRICE: $23.00; MEMBER PRICE $18.40. PCN: 04-720000-16

ABSTRACT: THIS VOLUME PROVIDES DETAILED INFORMATION IN SUCH AREAS AS: CHARACTERISTICS OF WATERS FROM EMERGING ENERGY TECHNOLOGIES, PARAMETRIC ANALYSIS OF INORGANIC SPECIES, ORGANIC SPECIES, AND BIOLOGIC ACTIVITY, CHARACTERISTICS OF WATER WHICH CONTACTS SOLID FOSSIL ENERGY WASTES.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011561

PUBLICATION DATE: 82

TITLE: AQUATIC TOXICOLOGY AND HAZARD ASSESSMENT (FIFTH CONFERENCE). STP 766.

PERSONAL AUTHOR: PEARSON/FOSTER/BISHOP, EDS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC TOXICOLOGY; *AQUATIC SAFETY; *ASSESSMENT; *MONITORING; *SAFETY; *SCREENING; *TOXICOLOGY

DESCRIPTIVE NOTE: 414P. PRICE: $44.50. PCN: 04-766000-16

ABSTRACT: STP 766 PRESENTS A DISCUSSION OF THE SCIENCE'S LACK OF QUANTITATIVE GROWTH AND INNOVATION BASED ON THE EXPERIENCE OF THOSE DEALING IN THE PRACTICAL APPLICATION OF AQUATIC TOXICOLOGY AS DECISION TOOLS IN AQUATIC SAFETY ASSESSMENT. THE PAPERS EXPRESS NEW AND INNOVATIVETECHNIQUES FOR SCREENING CHEMICALS, FOR MEASURING POPULATION AND COMMUNITY EFFECTS OF STRESS, AND FIELD VALIDATION OF LABORATORY-DERIVED DATA.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011562

PUBLICATION DATE: 84

TITLE: ECOLOGICAL ASSESSMENT OF MACROPHYTON: COLLECTION, USE, AND MEANING OF DATA. STP 843.

PERSONAL AUTHOR: DENNIS/ISOM, EDS.

DESCRIPTOR: *AQUATIC BIOLOGY; *BOTANY; *INSTRUCTIONAL MATERIALS; *MACROPHYTES; *MANAGEMENT; *POSTSECONDARY EDUCATION; *PLANTS; *PLANT COLLECTION

DESCRIPTIVE NOTE: 115P. PRICE: $20.00; MEMBER PRICE $16.00. PCN: 04-843000-16

ABSTRACT: THIS PUBLICATION PRESENTS A WIDE ARRAY OF STATE-OF-THE-ART TECHNIQUES FOR AQUATIC PLANT COLLECTION, USE, AND MEANING OF DATA. PROBLEMS UNIQUE TO SAMPLING AQUATIC MACROPHYTES AND POSSIBLE SOLUTIONS ARE HIGHLIGHTED IN THE BOOK'S 12 PAPERS. STP 843 IS FOR AQUATIC BOTANISTS, LIMNOLOGISTS, AND AQUATIC PLANT MANAGEMENT SPECIALISTS AND ANY SCIENTIST WORKING WITH THE DESCRIPTION, QUANTIFICATION, OR MANAGEMENT OF AQUATIC MACROPHYTES.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011563

PUBLICATION DATE: 84

TITLE: ASTM POWER PLANT WATER ANALYSIS MANUAL (FIRST EDITION).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MANUALS; *POSTSECONDARY EDUCATION; *POWER PLANTS; *WATER ANALYSIS; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 232P. PRICE: SOFT COVER, $39.00; MEMBER PRICE $31.20; LOOSELEAF $44.00; MEMBER PRICE $35.20. PCN: SOFT COVER 03-419084-16; LOOSELEAF 03-419184-16

ABSTRACT: THIS BOOK PROVIDES 46 SIMPLIFIED TEST METHODS AND PRACTICES FOR RAPID ANALYSIS OF POWER PLANT WATER. THE INFORMATION HAS BEEN STRUCTURED FOR PLANT CHEMISTS AS WELL AS FOR ROUTINE USE AT THE LABORATORY BENCH. THIS MANUAL IS ALSO INTENDED FOR USE BY ANY PLANT THAT PERFORMS WATER CHEMICAL ANALYSIS SUCH AS PLANTS DEALING IN PAPER AND PULP, WATER TREATMENT AND EFFLUENCE.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011564

PUBLICATION DATE: MAY 84

TITLE: WATER AND ENVIRONMENTAL TECHNOLOGY: WATER (I). VOLUME 11.01.

DESCRIPTOR: *ENVIRONMENT; *FLOW MEASUREMENT; *REAGENTS; *SAMPLING; *STANDARDS; *STEAM; *TECHNOLOGY; *WATER

DESCRIPTIVE NOTE: 788P. PRICE: $45.00; MEMBER PRICE $40.50. PCN: 01-110184-16

ABSTRACT: THIS PUBLICATION CONTAINS THE FOLLOWING TOPICS: DEFINITIONS, SPECIFICATIONS, REAGENTS, AND REPORTING RESULTS; SAMPLING AND FLOW MEASUREMENT OF WATER AND STREAM; GENERAL PROPERTIES; INORGANIC CONSTITUENTS.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011565

PUBLICATION DATE: MAY 84

TITLE: WATER AND ENVIRONMENTAL TECHNOLOGY: WATER (II). VOLUME 11.02.

DESCRIPTOR: *MICROBIOLOGY; *ORGANIC COMPOUNDS; *SALINITY; *STANDARDS; *SEA WATER; *WATER; *WATER TREATMENT

DESCRIPTIVE NOTE: 1220P. PRICE: $67.00; MEMBER PRICE $60.30. PCN: 01-110284-16

ABSTRACT: TOPICS IN THIS PUBLICATION INCLUDE: ORGANIC CONSTITUENTS; RADIOACTIVITY; SALINE AND BRACKISH WATER, SEA WATERS, AND BRINES; MICROBIOLOGICAL EXAMINATIONS; WATER-FORMED DEPOSITS; WATER TREATMENT MATERIALS.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011566

PUBLICATION DATE: AUG 84

TITLE: WATER AND ENVIRONMENTAL TECHNOLOGY: PESTICIDES; RESOURCE RECOVERY; HAZARDOUS SUBSTANCES AND OIL SPILL RESPONSE; WASTE DISPOSAL; BI

DESCRIPTOR: *BIOLOGICAL EFFECTS; *ENVIRONMENT; *HAZARDOUS SUBSTANCES; *OIL SPILLS; *PESTICIDES; *TECHNOLOGY; *WASTE DISPOSAL; *WATER POLLUTION

DESCRIPTIVE NOTE: 740P. PRICE: $45.00. PCN: 01-110484-48

ABSTRACT: TOPICS CONSIDERED INCLUDE: PESTICIDES; RESOURCE RECOVERY; HAZARDOUS SUBSTANCES AND OIL SPILL RESPONSE; WASTE DISPOSAL; BIOLOGICAL EFFECTS AND ENVIRONMENTAL FATE.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011567

PUBLICATION DATE: 84

TITLE: GROUNDWATER POLLUTION MICROBIOLOGY.

PERSONAL AUTHOR: BITTON, GABRIEL, ED.; GERBA, CHARLES P.

DESCRIPTOR: *CHEMICAL CONTAMINATES; *CONTAMINATION; *GROUNDWATER; *HEALTH; *HYDROLOGY; *MICROBIOLOGY

DESCRIPTIVE NOTE: 377P. PRICE: $49.95

ABSTRACT: THIS IS A COMPILATION OF CURRENT KNOWLEDGE OF THE MICROBIAL ASPECTS OF GROUNDWATER POLLUTION. THE BOOK EXAMINES THE ROLE OF MICROBES IN DEGRADATION AND TRANSFORMATION OF CHEMICAL CONTAMINANTS, AND REVIEWS THE HEALTH EFFECTS OF CHEMICAL CONTAMINANTS AND MICROORGANISMS OF SIGNIFICANCE IN GROUNDWATER.

AVAILABILITY: WILEY PROFESSIONAL BOOK ANNOUNCEMENTS, JOHN WILEY AND SONS, INC., DEPT. 0113, P.O. BOX 092, SOMERSET, N.J., 08873

IRIS ACCESSION NUMBER: EW011568

PUBLICATION DATE: DEC 83

TITLE: RESULTS OF THE NATIONWIDE URBAN RUNOFF PROGRAM. EXECUTIVE SUMMARY.

PERSONAL AUTHOR: ATHAYDE, D. N.; AND OTHERS

DESCRIPTOR: *NATIONWIDE URBAN RUNOFF PROGRAM; *POLLUTION CONTROL; *STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *WATER QUALITY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 30P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-185545

ABSTRACT: THIS DOCUMENT PROVIDES A BRIEF OVERVIEW OF THE NATIONWIDE URBAN RUNOFF PROGRAM, AND THE CONCLUSIONS REACHED, AND ISSUES IDENTIFIED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011569

PUBLICATION DATE: 83

TITLE: VENTILATED IMPROVED PIT LATRINES: VENT PIPE DESIGN GUIDELINES (1983).

PERSONAL AUTHOR: RYAN, BEVERLY A.; MARA, D. DUNCAN

DESCRIPTOR: *AFRICA; *GUIDELINES; *DESIGN; *LATRINES; *SANITATION; *VENT PIPES

DESCRIPTIVE NOTE: 17P.

ABSTRACT: THIS TECHNICAL NOTE SETS OUT PRELIMINARY GUIDELINES FOR THE DESIGN OF VENT PIPES FOR VENTILATED IMPROVED PIT (VIP) LATRINES. THESE GUIDELINES ARE BASED ON EXTENSIVE FIELDWORK DONE IN BOTSWANA AND ZIMBABWE IN 1981/2, WHICH SHOWED THAT THE LOCAL WIND SPEED AND DIRECTION WERE THE MAJOR FACTORS RESPONSIBLE FOR INDUCING UPDRAFT IN THE VENT PIPE; THERMALLY INDUCED UPDRAFT WAS FOUND TO BE OF ONLY MINOR IMPORTANCE.

AVAILABILITY: THE WORLD BANK, 1818 H. STREET, N.W., WASHINGTON, DC 20433

IRIS ACCESSION NUMBER: EW011570

PUBLICATION DATE: 80

TITLE: SANITATION FOR SITE AND SERVICE SCHEMES - A TECHNICAL AND ECONOMIC APPRAISAL OF SANITATION ALTERNATIVES FOR URBAN KENYA (1980).

DESCRIPTOR: *ECONOMICS; *ENGINEERING; *KENYA; *PLANNING; *SANITATION; *SEWAGE; *TECHNOLOGY; *WATER SUPPLY

ABSTRACT: THIS PAPER REVIEWS SOME OF THE CURRENT SANITARY ENGINEERING PROBLEMS THAT RESULT FROM THE USE OF CONVENTIONAL WATERBORNE SEWERAGE IN SITE AND SERVICE HOUSING SCHEMES IN KENYA. THE STUDY IS BASED ON A SYNTHETIC NEIGHBOURHOOD MODEL AND USES AN IMPROVED HOUSEHOLD WATER SUPPLY SERVICE, EMPLOYING AUTOMATIC SELF-CLOSING TAPS.

AVAILABILITY: T. S. CHANA, DIRECTOR, HOUSING RESEARCH AND DEVELOPMENT UNIT, P.O. BOX 30197, NAIROBI, KENYA

IRIS ACCESSION NUMBER: EW011571

PUBLICATION DATE: 82

TITLE: RETENTION OF BACTERIA, VIRUSES AND HEAVY METALS ON CROPS IRRIGATED WITH RECLAIMED WATER. TECHNICAL PAPER NO. 74.

PERSONAL AUTHOR: SMITH, M. A.

DESCRIPTOR: *AGRICULTURE; *AUSTRALIA; *CROPS; *BACTERIA; *HEAVY METALS; *IRRIGATION; *RECLAIMED WATER; *RESEARCH; *VIRUSES; *WATER REUSE; *WASTEWATER

DESCRIPTIVE NOTE: 316P.

ABSTRACT: THIS REPORT PRESENTS INFORMATION RESULTING FROM A RESEARCH PROJECT WHOSE OBJECTIVE WAS TO ASSESS THE EXTENT OF THE ACCUMULATION OF A SELECTED RANGE OF HEAVY METALS AND THE EXTENT OF THE RETENTION AND SURVIVAL OF BACTERIA AND VIRUSES IN EDIBLE CROPS WHICH HAVE BEEN IRRIGATED WITH SECONDARY EFFLUENT FROM A METROPOLITAN SEWAGE TREATMENT PLANT.

AVAILABILITY: AUSTRALIAN GOVERNMENT PUBLISHING SERVICE, P.O. BOX 84, CANBERRA ACT. 2600, AUSTRALIA

IRIS ACCESSION NUMBER: EW011572

PUBLICATION DATE: 82

TITLE: GROUNDWATER RECHARGE WITH SECONDARY SEWAGE EFFLUENT. TECHNICAL PAPER NO. 71.

PERSONAL AUTHOR: MATHEW, K.; AND OTHERS

DESCRIPTOR: *AUSTRALIA; *GROUNDWATER; *GROUNDWATER RECHARGE; *EFFLUENT; *MODELS; *NITROGEN; *POLLUTION; *SOILS; *WATER REUSE; *WATER RESOURCES; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 172P.

ABSTRACT: THE PRESENT STUDY PRIMARILY EXAMINES HOW VARIOUS SOILS AFFECT POLLUTANT REMOVAL IN A RECHARGE PROJECT. THE REMOVAL OF NITROGEN WAS STUDIED IN DETAIL AND A MATHEMATICAL MODEL WAS DEVELOPED BASED ON THE PROCESSES CONTRIBUTING TO NITROGEN REMOVAL, IN ORDER TO SIMULATE THE OVERALL PROCESS AND OPTIMIZE NITROGEN REMOVAL.

AVAILABILITY: AUSTRALIAN GOVERNMENT PUBLISHING SERVICE, P.O. BOX 84, CANBERRA ACT. 2600, AUSTRALIA

IRIS ACCESSION NUMBER: EW011573

PUBLICATION DATE: OCT 84

TITLE: CHEMICAL GROUT REHABILITATION OF MANHOLES.

PERSONAL AUTHOR: MAGILL, F. D., JR.

DESCRIPTOR: *CASE HISTORIES; *GROUT; *INFILTRATION; *INFLOW; *MAINTENANCE; *MANHOLES; *REHABILITATION; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 50-52P.

ABSTRACT: THREE CASE HISTORIES FOCUS ON THE BENEFITS OF CHEMICAL GROUTING TO CONTROL INFILTRATION AND INFLOW IN MANHOLES.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011574

PUBLICATION DATE: OCT 84

TITLE: MAINTENANCE DOLLARS WORKING HARDER FOR WATER TREATMENT PLANT.

PERSONAL AUTHOR: LYLES, BARBARA D.; BOWERS, ROBERT G.

DESCRIPTOR: *FACILITIES; *MAINTENANCE; *PREVENTIVE MAINTENANCE; *PROGRAM DESCRIPTIONS; *SOUTH CAROLINA; *WATER TREATMENT

DESCRIPTIVE NOTE: 53-56P.

ABSTRACT: A COMPREHENSIVE PREVENTIVE MAINTENANCE PROGRAM IS SIMPLE TO USE AND EFFECTIVE. A PROGRAM AT A WATER TREATMENT PLANT IN CHARLESTON, SOUTH CAROLINA IS DESCRIBED.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011575

PUBLICATION DATE: OCT 84

TITLE: WASTEWATER DISINFECTION WITH BROMINE CHLORIDE.

PERSONAL AUTHOR: ZEH, THURBER G., JR.

DESCRIPTOR: *BROMINE CHLORIDE; *DISINFECTION; *HANDLING; *OPERATIONS (WASTEWATER); *SAFETY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 56-57P.

ABSTRACT: THE CHARACTERISTICS OF BROMINE CHLORIDE ARE OUTLINED AND SAFE HANDLING PRACTICES ARE REVIEWED.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011576

PUBLICATION DATE: OCT 84

TITLE: WHAT IS PRIVATIZATION?

PERSONAL AUTHOR: DOCTOR, RONALD D.

DESCRIPTOR: *COSTS; *CONTRACTING; *FINANCES; *FACILITIES; *INVESTMENT; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *PRIVATIZATION; *SERVICE CONTRACTS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 60-62, 104P.

ABSTRACT: REVIEWED ARE THE ADVANTAGES FOR A COMMUNITY AND POTENTIAL BENEFITS FOR THE INVESTOR.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011577

PUBLICATION DATE: OCT 84

TITLE: VIDEO TAPING - A NEW TOOL FOR WASTEWATER OPERATIONS.

PERSONAL AUTHOR: NICOLAI, BRUNO

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS;

*OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *TRAINING; *VIDEO TAPES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 66, 103-04P.

ABSTRACT: AS SERVICEMEN EXPLAINED OPERATION AND MAINTENANCE AT A NEW TREATMENT PLANT, A VIDEO TAPE WAS MADE FOR FUTURE REFERENCE. THE MATERIALS CAN PROVIDE INSTRUCTION FOR LATER TRAINING.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011578

PUBLICATION DATE: OCT 84

TITLE: THE ANSWER IS A RESOUNDING 'YES, MAYBE!' PART II.

PERSONAL AUTHOR: HARDY, JUSTIN T.

DESCRIPTOR: *CONTRACTING; *MAINTENANCE; *OPERATIONS (WASTEWATER); *SERVICE CONTRACTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 67-70, 107P.

ABSTRACT: DESCRIBED IS THE SELECTION OF AN OPERATION AND MAINTENANCE CONTRACT OPERATOR FOR BREMERTON, WASHINGTON'S WASTEWATER TREATMENT FACILITY.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011579

PUBLICATION DATE: OCT 84

TITLE: LANDSCAPE DESIGN HELPS SELL INNOVATIVE WASTEWATER EFFLUENT DISPOSAL SYSTEM.

PERSONAL AUTHOR: OLCOTT, JOHN Z.; PEDERSEN, TOM A.

DESCRIPTOR: *EFFLUENT; *AESTHETICS; *INFILTRATION; *LANDSCAPING; *MANAGEMENT; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 74-75P.

ABSTRACT: DESCRIBED IS THE DESIGN OF RAPID FILTRATION BASINS TO COMPLY WITH A ZERO DISCHARGE MANDATE. LANDSCAPING WAS INCLUDED TO ENHANCE AESTHETICS.

AVAILABILITY: PUBLIC WORKS; V115 N10

IRIS ACCESSION NUMBER: EW011580

PUBLICATION DATE: OCT 84

TITLE: TRADEOFFS IN WATER QUALITY MANAGEMENT.

PERSONAL AUTHOR: MALE, JAMES W.; OGAWA, HISASHI

DESCRIPTOR: *COSTS; *ECONOMICS; *EFFLUENT; *MANAGEMENT; *MODELS; *POLICIES; *STREAMFLOW; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 434-44P.

ABSTRACT: THIS PAPER DESCRIBES A DIAGRAM WHICH CAN BE USED TO ASSESS SOME OF THE TRADE OFFS INVOLVED IN WATER QUALITY MANAGEMENT DECISIONS. THE DIAGRAM IS USED IN THE PAPER TO ADDRESS THE ECONOMIC EFFECT OF SPECIFYING A CRITICAL LOW FLOW, OTHER THAN THE SEVEN-DAY TEN-YEAR LOW FLOW. RESULTS SHOW THAT FOR THE CASE STUDY CHOSEN, SIGNIFICANT COST SAVINGS COULD RESULT WITHOUT SUBSTANTIALY REDUCING THE WATER QUALITY OF THE RECEIVING STREAM.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N4

IRIS ACCESSION NUMBER: EW011581

PUBLICATION DATE: OCT 84

TITLE: WATER RESOURCE EDUCATION IN THE CORPS OF ENGINEERS.

PERSONAL AUTHOR: SHEPPARD, STEPHEN M.

DESCRIPTOR: *CORPS OF ENGINEERS; *ENGINEERING EDUCATION; *HIGHER EDUCATION; *EDUCATION; *POSTSECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *TRAINING; *WATER RESOURCES

DESCRIPTIVE NOTE: 445-53P.

ABSTRACT: DESCRIBED ARE TRAINING PROGRAMS PROVIDED BY THE CORPS OF ENGINEERS RELATED TO WATER RESOURCE EDUCATION. COURSES AND PROGRAMS ARE AVAILABLE FOR HIGH SCHOOL AND COLLEGE STUDENTS. IN ADDITION EXTENSIVE PROGRAMS ARE OFFERED TO EMPLOYEES BEGINNING WITH NEWLY HIRED STAFF AND CONTINUING THROUGHOUT THE EMPLOYEE'S CAREER.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N4

IRIS ACCESSION NUMBER: EW011582

PUBLICATION DATE: OCT 84

TITLE: WATER CONSERVATION, RECYCLING, AND REUSE: U.S. NORTHEAST.

PERSONAL AUTHOR: KAPLAN, EDWARD

DESCRIPTOR: *WATER CONSERVATION; *INDUSTRIES; *MIDDLE ATLANTIC STATES; *NEW ENGLAND REGION; *MANAGEMENT; *POLICIES; *RECYCLING; *TRENDS; *WATER REUSE; *WATER RECYCLING; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 455-77P.

ABSTRACT: THIS PAPER FOCUSES UPON PRESENT AND FUTURE POSSIBILITIES FOR WATER CONSERVATION, RECYCLING, AND REUSE IN NEW ENGLAND AND MIDDLE ATLANTIC STATES. ASSUMING REDUCTIONS IN WATER USE BY INDUSTRIES, AGRICULTURE, AND BY PRIVATE RESIDENCES IN THE YEAR 2000, IT WAS FOUND THAT MANY USERS, PARTICULARLY THE ELECTRIC UTILITY SECTOR, WOULD STILL EXPERIENCE SERIOUS WATER SUPPLY SHORTFALLS IN SEVERAL INDUSTRIAL STATES.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N4

IRIS ACCESSION NUMBER: EW011583

PUBLICATION DATE: OCT 84

TITLE: PROVING OUR WORTH: THE TRAINING VALUE MODEL.

PERSONAL AUTHOR: BENNETT, BARBARA; GRISWOLD, DAVID F.

DESCRIPTOR: *COSTS; *EVALUATION; *HUMAN RESOURCES DEVELOPMENT; *NEEDS ASSESSMENT; *OBJECTIVES; *PLANNING; *PERFORMANCE EVALUATION; *TRAINING; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 81-83P.

ABSTRACT: THIS MODEL ANSWERS THE FOUR TOUGHEST TRAINING QUESTIONS: (1) WHAT BEHAVIORAL CHANGES DO WE NEED? (2) WHAT SERVICES WILL ACCOMPLISH THESE CHANGES? (3) HOW WILL THESE SERVICES BACK-ON-THE-JOB BEHAVIOR?

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N10

IRIS ACCESSION NUMBER: EW011584

PUBLICATION DATE: 83

TITLE: COAGULANTS AND FLOCCULANTS IN WATER TREATMENT.

PERSONAL AUTHOR: ZAPOL'SKII, A. K.; AND OTHERS

DESCRIPTOR: *CHEMICALS; *COAGULANTS; *CONFERENCE PROCEEDINGS; *FLOCCULANTS; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *RESEARCH; *SYNTHESIS; *WASTEWATER TREATMENT; *WATER TREATMENT; *USSR

DESCRIPTIVE NOTE: 128-30P.

ABSTRACT: THIS PAPER SUMMARIZES REPORTS PRESENTED AT A SEMINAR ON THE SYNTHESIS AND USE OF COAGULANTS AND FLOCCULANTS IN WATER TREATMENT HELD IN KIEV, USSR.

AVAILABILITY: SOVIET JOURNAL OF WATER CHEMISTRY AND TECHNOLOGY; V5 N4

IRIS ACCESSION NUMBER: EW011585

PUBLICATION DATE: AUG 83

TITLE: GENERAL GUIDELINES FOR SUBSURFACE TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: COGGER, C. G.; RUBIN, A. R.

DESCRIPTOR: *DESIGN; *FACILITIES; *GUIDELINES; *LAND APPLICATION; *LAND TREATMENT; *MANAGEMENT; *NORTH CAROLINA; *SLUDGE; *SUBSURFACE TREATMENT; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WETLANDS

DESCRIPTIVE NOTE: 31P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-190370

ABSTRACT: THE FOURTH OF A SERIES OF FIVE REPORTS DEALING WITH LAND (AND WETLAND) TREATMENT OF WASTEWATER AND SLUDGE UNDER THE GENERAL GUIDANCE OF A TASK FORCE REPRESENTING NORTH CAROLINA REGULATORY AGENCIES AND UNIVERSITIES. THE REPORT PROVIDES GENERAL GUIDELINES FOR THE DESIGN AND MANAGEMENT OF LARGE SUBSURFACE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS. WHILE DEVELOPED PRIMARILY FOR FLOWS GREATER THAN 3000 GAL. PER DAY, MANY OF THE CONCEPTS APPLY TO SMALLER SYSTEMS. EMPHASIS IS ON THE LAND TREATMENT PART OF THE SYSTEM RATHER THAN INITIAL TREATMENT UNITS. MAJOR SECTIONS INCLUDE WASTE CHARACTERIZATION, SITE SELECTION, INITIAL TREATMENT, LAND AREA REQUIREMENTS, ABSORPTION AREA DESIGN, AND MAINTENANCE AND MONITORING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011586

PUBLICATION DATE: JUN 84

TITLE: APPLICATION GUIDE FOR HYDROLOGICAL SIMULATION PROGRAM - FORTRAN (HSPE).

PERSONAL AUTHOR: DONIGIAN, A. S. JR.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *GUIDES; *HYDROLOGY; *SIMULATIONS; *WATER QUALITY

DESCRIPTIVE NOTE: 189P. PRICE CODE: PC A09/MF A01. ORDER NO.: PB84-215763

ABSTRACT: THE HYDROLOGICAL SIMULATION PROGRAM - FORTRAN (HSPF) IS A SET OF COMPUTER CODES THAT CAN SIMULATE THE HYDROLOGIC AND ASSOCIATED WATER QUALITY PROCESSES ON PERVIOUS AND IMPERVIOUS LAND SURFACES, IN THE SOIL PROFILE, AND IN STREAMS AND WELLMIXED IMPOUNDMENTS. THIS DOCUMENT DESCRIBES THE ENTIRE APPLICATION PROCESS OF HSPF TO DEMONSTRATE THE DECISIONS, PROCEDURES, AND RESULTS THAT ARE INVOLVED IN A TYPICAL APPLICATION. THE DOCUMENT IS INTENDED AS A SUPPLEMENT TO THE EXISTING HSPF USER'S MANUAL AND PROGRAMMER'S SUPPLEMENT. TOGETHER THESE THREE DOCUMENTS PROVIDE SUFFICIENT GUIDANCE FOR THE FULL AND INTELLIGENT USE OF THE BROAD RANGE OF CAPABILITIES OF HSPF.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011587

PUBLICATION DATE: APR 84

TITLE: WATER SCIENCE AND TECHNOLOGY BOARD ANNUAL REPORT, 1983.

DESCRIPTOR: *ANALYSIS; *FACILITIES; *ISSUES; *MANAGEMENT; *PLANNING; *TECHNOLOGY; *WATER QUALITY; *WATER RESOURCES; *WATER SCIENCE AND TECHNOLOGY BOARD

DESCRIPTIVE NOTE: 46P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-216571

ABSTRACT: THE WATER SCIENCE AND TECHNOLOGY BOARD WAS ESTABLISHED IN 1982 TO SERVE AS THE FOCAL POINT FOR NATIONAL RESEARCH COUNCIL ACTIVITIES RELATED TO WATER RESOURCES. THE BOARD'S OBJECTIVE IS TO IMPROVE THE SCIENTIFIC AND TECHNOLOGICAL BASES FOR REACHING IMPORTANT SCIENTIFIC QUESTIONS AND ISSUES. ITS SCOPE COVERS ALL OF THE TRADITIONAL SCIENTIFIC AND ENGINEERING ASPECTS OF WATER RESOURCES AND THE ECONOMIC, INSTITUTIONAL, LEGAL, EDUCATIONAL, AND SOCIAL ASPECTS, AS WELL. STANDING SUBCOMMITTEES OF THE BOARD CONDUCT PROGRAM-LEVEL ACTIVITIES IN FOUR AREAS: WATER RESOURCES FACILITIES AND STRUCTURES; WATER SCIENCE; WATER QUALITY AND TECHNOLOGY; AND MANAGEMENT, ANALYSIS, AND PLANNING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011588

PUBLICATION DATE: 84

TITLE: USE OF PROBABILISTIC INFORMATION IN THE WATER QUALITY BASED APPROACH.

PERSONAL AUTHOR: JAWORSKI, N. A.; MOUNT, D. I.

DESCRIPTOR: *DATA ANALYSIS; *CRITERIA; *EFFLUENT LIMITATIONS; *MANAGEMENT; *STATISTICAL INFORMATION; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 21P. PRICE-CODE: PC A02/MF A01. ORDER NO.: PB84-220326

ABSTRACT: DURING THE PAST TWO DECADES, IMPLEMENTATION PROCEDURES IN WASTEWATER MANAGEMENT OFTEN RESULTED IN A LARGE MARGIN OF SAFETY BEING INCORPORATED INTO THE USE OF WATER QUALITY CRITERIA FOR THE PROTECTION OF AQUATIC LIFE AND ITS USES. WASTELOAD ALLOCATION DESIGN CONDITIONS, SUCH AS THE USE OF SEVEN-DAY, TEN-YEAR LOW FLOW, GAVE ASSURANCES OF INSTREAM CONCENTRATIONS WELL BELOW THE WATER QUALITY CRITERIA FOR A LARGE PERCENTAGE OF TIME. PRESENT-DAY ECONOMIC CONDITIONS AND THE INCREASING COST OF ADVANCED WASTEWATER TREATMENT ARE NECESSITATING A RE-EXAMINATION OF HOW WATER QUALITY CRITERIA ARE BEING USED IN THE WATER QUALITY BASED APPROACH FOR ESTABLISHING EFFLUENT LIMITATIONS. THE RELATIONSHIPS BETWEEN WATER QUALITY CRITERIA AND OTHER COMPONENTS OF THE WATER QUALITY BASED APPROACH ARE IDENTIFIED. THE NEED FOR A BETTER DEFINED AND MORE CONSISTENT USE OF STATISTICAL INFORMATION IS SUGGESTED NOT ONLY IN THE DEVELOPMENT OF WATER QUALITY BASED APPROACH. INTENSITY, DURATION, AND FREQUENCY OF OCCURRENCE (RETURN PERIOD) APPEAR TO BE THREE COMMON STATISTICAL PARAMETERS OF THE SIX-STEP WATER QUALITY BASED APPROACH.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011589

PUBLICATION DATE: 84

TITLE: ENVIRONMENTAL HEALTH-RELATED INFORMATION: A BIBLIOGRAPHIC GUIDE TO FEDERAL SOURCES FOR THE HEALTH PROFESSIONAL.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *AUDIOVISUAL AIDS; *EDUCATIONAL RESOURCES; *ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH; *PUBLICATIONS

DESCRIPTIVE NOTE: 325P. PRICE CODE: PC A14/MF A01. ORDER NO.: PB84-229681

ABSTRACT: THE ANNOTATED BIBLIOGRAPHY CITES FEDERALLY-FUNDED MATERIAL ON OCCUPATIONAL AND ENVIRONMENTAL HEALTH ISSUES. PUBLICATIONS AND AUDIOVISUAL MATERIAL RELEVANT TO THE PREVENTION, DIAGNOSIS, TREATMENT, OR LIMITATION OF ENVIRONMENTALLY RELATED DISEASE ARE INCLUDED. SOME MATERIALS LISTED PROVIDE BASIC INFORMATION NECESSARY TO THE UNDERSTANDING OF ANY POTENTIAL RELATIONSHIP BETWEEN HEALTH AND OCCUPATIONAL AND ENVIRONMENTAL FACTORS. MATERIALS INCLUDED ARE PRIMARILY DIRECTED TOWARD ASSISTING HEALTH PROFESSIONALS TO IDENTIFY AND SELECT APPROPRIATE MATERIALS FOR UPDATING AND EXPANDING THEIR OWN KNOWLEDGE AND TO AIDING IN THE EDUCATION OF THEIR STUDENTS AND PATIENTS. IT WILL ALSO HELP FEDERAL PROGRAM PLANNERS WHO MAKE DECISIONS RELATIVE TO FUTURE EDUCATIONAL RESOURCE NEEDS. THE BIBLIOGRAPHY CONTAINS 37 SUBJECT CATEGORIES. INFORMATION IS INCLUDED ON HOW TO OBTAIN CITED DOCUMENTS AND AUDIOVISUAL MATERIALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011590

PUBLICATION DATE: APR 84

TITLE: HEALTH ASSESSMENT DOCUMENT FOR CHLORINATED BENZENES. PARTS 1 AND 2. EXTERNAL REVIEW DRAFT.

DESCRIPTOR: *ANIMALS; *CHEMICAL PROPERTIES; *CHLORINATED BENZENES; *ENVIRONMENT; *HEALTH; *HUMANS; *MONITORING; *PUBLIC HEALTH; *RESEARCH REVIEW; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 626P. PRICE CODE: PC A99/MF A01. ORDER NO.: PB84-220359

ABSTRACT: THIS DOCUMENT SUMMARIZES THE CURRENT KNOWLEDGE OF THE EFFECTS OF EXPOSURE TO THE CHLORINATED BENZENES ON HUMAN HEALTH. THE CHLORINATED BENZENES ARE RESISTANT TO CHEMICAL AND BIOLOGICAL DEGRADATION AND TEND TO ACCUMULATE IN LIPID-CONTAINING TISSUES OF ANIMALS AND HUMANS. THE UBIQUITOUS ENVIRONMENTAL DISTRIBUTION OF THE CHLORINATED BENZENES AND THEIR BIOCONCENTRATION IN HUMANS ARE A BASIS FOR CONCERN OVER THE CONSEQUENCES OF CHRONIC EXPOSURE TO HUMAN HEALTH. THE RATIONALE FOR STRUCTURING THIS DOCUMENT IS BASED PRIMARILY ON TWO MAJOR ISSUES, EXPOSURE AND RESPONSE. THE FIRST PORTION OF THE DOCUMENT IS DEVOTED TO THE CHLORINATED BENZENES IN THE ENVIRONMENT: PHYSICAL AND CHEMICAL PROPERTIES, THE MONITORING OF THE CHLORINATED BENZENES IN VARIOUS MEDIA, NATURAL AND HUMAN-MADE SOURCES, THE TRANSPORT AND DISTRIBUTION OF THE CHLORINATED BENZENES WITHIN ENVIRONMENTAL MEDIA, AND THE LEVELS OF EXPOSURE. THE SECOND PART IS DEVOTED TO BIOLOGICAL RESPONSES IN LABORATORY ANIMALS AND HUMANS INCLUDING METABOLISM, PHARMACOKINETICS, AS WELL AS THE TOXICOLOGICAL EFFECTS OF THE CHLORINATED BENZENES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011591

PUBLICATION DATE: 84

TITLE: TRAINING FOR ENVIRONMENTAL GROUPS.

PERSONAL AUTHOR: DAVIES, J. CLARENCE; AND OTHERS

DESCRIPTOR: CONSERVATION EDUCATION; *ENVIRONMENT; *ENVIRONMENTAL EDUCATION; HIGHER EDUCATION; *NEEDS ASSESSMENT; *ORGANIZATIONS (GROUPS); *PROGRAM DESCRIPTIONS; POLICY FORMATION; RESOURCE ALLOCATION; SKILL DEVELOPMENT; *TRAINING NEEDS; TRAINING; *TRAINING METHODS; TRAINING OBJECTIVES

DESCRIPTIVE NOTE: 141P.

ABSTRACT: THIS REPORT EXAMINES THE NEED FOR AND RESOURCES AVAILABLE TO ENVIRONMENTAL AND CONSERVATION GROUPS TO DEVELOP SKILLS IN RAISING MONEY AND RECRUITING NEW MEMBERS, MANAGING AN ORGANIZATION, COMMUNICATING WITH THE PRESS, AND ANALYZING POLICY ISSUES. DATA WERE OBTAINED FROM 255 QUESTIONNAIRES RETURNED BY REPRESENTATIVE GROUPS (411 WERE MAILED), AN EXTENSIVE LITERATURE SEARCH, INTERVIEWS WITH EXECUTIVES IN MAJOR ENVIRONMENTAL GROUPS AND PROVIDERS OF TRAINING, AND A MEETING OF THE HEADS OF UNIVERSITY ENVIRONMENTAL STUDIES PROGRAMS. FINDINGS INDICATE THAT THE NEEDS FOR MANAGEMENT, FUND RAISING, MEMBERSHIP RECRUITMENT, AND POLICY DEVELOPMENT SKILLS ARE CURRENTLY UNMET. FOR EXAMPLE, HALF THE GROUPS SURVEYED DID NOT KNOW HOW TO MEET THE TRAINING NEEDS THEY IDENTIFIED. BASED ON THESE AND OTHER FINDINGS, THE ESTABLISHMENT OF A NETWORK TO IDENTIFY AND LINK THE NEEDS OF DIVERSE ENVIRONMENTAL GROUPS AND THE INCREASING NUMBER OF TRAINING RESOURCES IS RECOMMENDED. IN ADDITION, A PILOT PROGRAM IN POLICY TRAINING (FUNDED BY PRIVATE SOURCES), REGULAR MEETINGS OF DEANS OF ENVIRONMENTAL STUDIES PROGRAMS, AND INTERNSHIPS ARE ALSO RECOMMENDED.

AVAILABILITY: THE CONSERVATION FOUNDATION, 1717 MASSACHUSETTS AVENUE, N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011592

PUBLICATION DATE: 83

TITLE: INTRODUCTION TO WASTEWATER TREATMENT PROCESSES. SECOND EDITION.

PERSONAL AUTHOR: RAMALHO, R. S.

DESCRIPTOR: *DESIGN; *FACILITIES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *PRIMARY TREATMENT; *SECONDARY TREATMENT; *TERTIARY TREATMENT; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 589P. PRICE: $57.00

ABSTRACT: THIS BOOK IS AN INTRODUCTORY PRESENTATION TO WASTEWATER TREATMENT. IN MOST SECTIONS THE PROCESS IS DISCUSSED AFTER A DISCUSSION OF THE THEORIES INVOLVED IN THE PROCESS, DEFINITIONS OF DESIGN PARAMETERS INVOLVED, AND DEVELOPMENT OF A SYSTEMATIC DESIGN PROCEDURE FOR THE TREATMENT PLANT. SECTIONS ARE INCLUDED ON PRETREATMENT AND PRIMARY TREATMENT, THEORY AND PRACTICE OF AERATION, SECONDARY TREATMENT, SLUDGE TREATMENT AND DISPOSAL, AND TERTIARY TREATMENT.

AVAILABILITY: ACADEMIC PRESS, 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW011593

PUBLICATION DATE: AUG 84

TITLE: ENVIRONMENTAL IMPACTS: COMPUTER ANALYSIS. 1970-JULY, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *COMPUTER ANALYSIS; COMPUTER APPLICATIONS; DESIGN; *ENVIRONMENTAL IMPACTS; *MODELS; *HUMAN ACTIVITIES; *SIMULATIONS

DESCRIPTIVE NOTE: 274P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-872548

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING COMPUTERIZED SIMULATION AND MATHEMATICAL MODELLING, COMPUTER PROGRAMS AND CALCULATIONS, AND COMPUTER-AIDED DESIGN FOR THE DETERMINATION, EVALUATION, AND SPECIFICATION OF ENVIRONMENTAL IMPACT RELATED TO VARIOUS HUMAN ACTIVITIES (COMMERCIAL, RECREATIONAL, AND GOVERNMENTAL) AND EQUIPMENT AND SYSTEMS ASSOCIATED WITH THESE ACTIVITIES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 274 CITATIONS, 46 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011594

PUBLICATION DATE: AUG 84

TITLE: BIOLOGICAL OXYGEN DEMAND IN RIVERS AND WASTEWATER LAGOONS. 1977-JULY, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOLOGICAL OXYGEN DEMAND; *FACILITIES; *LAGOONS; *RIVERS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 134P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-872316

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING BIOLOGICAL OXYGEN DEMAND (BOD) AS IT PERTAINS TO WATER QUALITY. THE FEATURES STUDIED INCLUDE POLLUTED WATERWAYS AND WASTEWATER TREATMENT FACILITIES. LOADING RATES AND EVALUATIONS OF BOD REMOVAL FOR SPECIFIC TREATMENT SYSTEMS ARE DISCUSSED. PROCESS MODELING AND SYSTEM DESIGN ARE ALSO PRESENTED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 143 CITATIONS, 47 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011595

PUBLICATION DATE: AUG 84

TITLE: LAKE AND RIVER BOTTOM SAMPLING. 1977-JULY, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BOTTOM SAMPLING; *LAKES; *ENVIRONMENT; *PONDS; *RIVERS; *SAMPLING; WATER QUALITY

DESCRIPTIVE NOTE: 172P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-872530

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS COVERING TECHNIQUES AND RESULTS RELATED TO THE COLLECTION OF SAMPLES FROM THE BOTTOM OF PONDS, LAKES, AND RIVERS. TECHNIQUES INCLUDE SAMPLING DEVICES, PLATFORMS FOR MOUNTING OR OPERATING THE SAMPLING DEVICES, AND ANALYTICAL TECHNIQUES FOR THE COLLECTED SAMPLES. RESULTS INCLUDE FINDINGS OF ORGANIC, CHEMICAL AND METALLIC MATERIAL IN BOTTOM SEDIMENTS, WITH, IN MANY CASES, STATEMENTS ON RESULTING WATER QUALITY OR ENVIRONMENTAL ASPECTS AND THE CAUSES. IN SOME CASES, THE INVESTIGATIONS COVER POROSITY OF BOTTOM SOILS, AND GROUND WATER BENEATH THE LAKE OR RIVER. MANY OF THE SAMPLES INCLUDE BENTHIC FAUNA TO ASSESS THE CONDITION OF THE WATER. (THIS UPDATED BIBLIOGRAPHY CONTAINS 173 CITATIONS, 40 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011596

PUBLICATION DATE: 84

TITLE: SIGNIFICANCE OF COAGULATION-FLOCCULATION AND FILTRATION OPERATIONS IN WASTEWATER RECLAMATION AND REUSE.

PERSONAL AUTHOR: ASANO, TAKASHI; AND OTHERS

DESCRIPTOR: *COAGULATION; *FILTRATION; *FLOCCULATION; *EFFLUENT; *PERFORMANCE EVALUATION; SOLIDS; VIRUS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 21P.

ABSTRACT: THE PURPOSE OF THIS PAPER WAS TO EVALUATE FACTORS AFFECTING THE OPTIMIZATION OF COAGULATION-FLOCCULATION AND FILTRATION PROCESSES IN MUNICIPAL WASTEWATER RECLAMATION AND REUSE. SPECIAL REFERENCE IS MADE TO RECENT STUDIES DESIGNED TO ASSESS THE ABOVE TREATMENT PROCESSES FOR PRODUCING RECLAIMED WATER THAT HAS AN EXTREMELY SMALL PROBABILITY OF VIRUS CONTAMINATION.

AVAILABILITY: DOCUMENT SECTION, DEPARTMENT OF GENERAL SERVICES, STATE OF CALIFORNIA, P.O. BOX 1015, NORTH HIGHLANDS, CA 95560

IRIS ACCESSION NUMBER: EW011597

PUBLICATION DATE: JUL 84

TITLE: IRRIGATION WITH RECLAIMED MUNICIPAL WASTEWATER - A GUIDANCE MANUAL. REPORT NO. 84-1.

PERSONAL AUTHOR: PETTYGROVE, G. STUART, ED.; ASANO, TAKASHI, ED.

DESCRIPTOR: *AGRICULTURE; *DESIGN; *IRRIGATION; *MANUALS; *OPERATIONS (WASTEWATER); *LAND APPLICATION; *PLANNING; *RECYLING; *RECLAIMED WASTEWATER; *WASTEWATER; *WATTEWATER TREATMENT; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 518P. PRICE: $13.10. ORDER NO.: 7540-979-1019-0

ABSTRACT: THIS PUBLICATION IS FOR USE IN THE PLANNING, DESIGN, AND OPERATION OF AGRICULTURAL AND LANDSCAPE IRRIGATION SYSTEMS USING RECLAIMED MUNICIPAL WASTEWATER. SEVERAL CHAPTERS WERE WRITTEN SPECIFICALLY FOR CALIFORNIA READERS, BUT MUCH OF THE GUIDANCE MANUAL IS APPLICABLE TO ARID AND SEMI-ARID ENVIRONMENTS OUTSIDE OF CALIFORNIA. THE EMPHASIS IN THIS MANUAL IS ON THE BENEFICIAL USE OF RECLAIMED WASTEWATER FOR AGRICULTURAL AND LANDSCAPE IRRIGATION. IN THIS RESPECT, IT DIFFERS FROM PUBLICATIONS SUCH AS THE U. S. ENVIRONMENTAL PROTECTION AGENCY'S PROCESS DESIGN MANUAL - LAND TREATMENT OF MUNICIPAL WASTEWATER. FOR EXAMPLE, THE GUIDANCE MANUAL EMPHASIZES IRRIGATION FOR THE

PURPOSE OF OPTIMIZING CROP PRODUCTION; THEREFORE, IT INCLUDES DETAILED INSTRUCTION IN THE CALCULATION OF CROP WATER REQUIREMENTS. FURTHERMORE, THE BENEFITS AND LIMITATIONS OF USING RECLAIMED MUNICIPAL WASTEWATER FOR AGRICULTURAL AND LANDSCAPE IRRIGATION ARE DISCUSSED, AS ARE OTHER TOPICS OF SPECIAL INTEREST, INCLUDING WATER MANAGEMENT FOR SALINITY AND SODICITY CONTROL, AND ECONOMIC AND LEGAL ASPECTS OF RECLAIMED WASTEWATER IRRIGATION. THIS 518-PAGE GUIDANCE MANUAL IS A RESULT OF THE COOPERATIVE EFFORT AMONG THE UNIVERSITY OF CALIFORNIA, THE CALIFIRNIA STATE WATER RESOURCES CONTROL BOARD, AND OTHER AGENCIES AND CONSULTANTS, AND REPRESENTS THE COLLECTIVE EFFORT OF 27 AUTHORS AND SEVERAL STAFF MEMBERS OVER A PERIOD OF TWO AND A HALF YEARS.

AVAILABILITY: DOCUMENT SECTION, DEPARTMENT OF GENERAL SERVICES, STATE OF CALIFORNIA, P.O. BOX 1015, NORTH HIGHLANDS, CA 95560

IRIS ACCESSION NUMBER: EW011598

PUBLICATION DATE: SEP 84

TITLE: OLD WATER-NEW WATER: SETTING EQUITABLE WATER RATES FOR SUBURBAN CUSTOMERS.

PERSONAL AUTHOR: MILLER, JAMES W.

DESCRIPTOR: *COSTS; *MODELS; *RATES; *SERVICE; *WATER RATES; *WATER SUPPLY

DESCRIPTIVE NOTE: 34-41P.

ABSTRACT: A CREATIVE RATE-MAKING METHODOLOGY ADDRESSES THE CONCERNS OF CITY WATER USERS AND SUBURBAN WHOLESALERS. THE RATE CONCEPTS APPLIED IN THE SEATTLE, WASH., METROPOLITAN AREA ADDRESS THE QUESTIONS OF HOW WATER SYSTEM COSTS SHOULD BE SPLIT BETWEEN CITY AND SUBURBAN CUSTOMERS, WHO SHOULD PAY FOR SUBURBAN GROWTH, AND WHAT METHODS SHOULD BE USED TO COMPUTE REVENUES REQUIRED FROM WHOLESALE PURVEYORS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011599

PUBLICATION DATE: SEP 84

TITLE: COMPUTING WATER SYSTEM DEVELOPMENT CHARGES.

PERSONAL AUTHOR: BARDEN, DREW S.; STEPP, RUSSELL J.

DESCRIPTOR: *CAPITAL COSTS; *DEVELOPMENT CHARGES; *COSTS; *MODELS; *WATER RATES; *WATER SUPPLY; *WATER SYSTEMS

DESCRIPTIVE NOTE: 42-46P.

ABSTRACT: THE BASE-EXTRA CAPACITY METHOD CAN BE ADAPTED TO CALCULATE AN EQUITABLE WATER SYSTEM DEVELOPMENT CHARGE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

N9

IRIS ACCESSION NUMBER: EW011600

PUBLICATION DATE: SEP 84

TITLE: WATER RATES AND THE RATE-SETTING PROCESS.

PERSONAL AUTHOR: WOODS, CHARLES E.

DESCRIPTOR: *ECONOMICS; *LEGAL ASPECTS; *POLICIES; *WATER RATES; *RATE SETTING PROCESS; *WATER SUPPLY

DESCRIPTIVE NOTE: 47-51P.

ABSTRACT: ECONOMIC PRINCIPLES AND LEGAL PRECEDENTS PLAY IMPORTANT ROLES IN DESIGNING AN EQUITABLE RATE STRUCTURE. SIX STAGES OF THE RATE-SETTING PROCESS ARE IDENTIFIED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011601

PUBLICATION DATE: SEP 84

TITLE: SINGLE TARIFF PRICING.

PERSONAL AUTHOR: LIMBACH, EDWARD W.

DESCRIPTOR: *ECONOMICS; *MODELS; *POLICIES; *RATE SETTING; *WATER RATES; *WATER SUPPLY; *WATER SYSTEMS

DESCRIPTIVE NOTE: 52-55P.

ABSTRACT: ALL CUSTOMERS IN 12 SEPARATE WATER DISTRICTS, WHETHER LARGE OR SMALL, ARE NOW CHARGED THE SAME RATES. SINGLE TARIFF PRICING WAS USED TO SOLVE THE PROBLEM OF DISPARATE RATES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011602

PUBLICATION DATE: SEP 84

TITLE: THE COMMON DENOMINATOR: EQUIVALENT RESIDENTIAL UNITS.

PERSONAL AUTHOR: WOODCOCK, JOHN J.

DESCRIPTOR: *MODELS; *POLICIES; *RATE-SETTING; *SEWER RATES; *WATER RATES; *WATER SUPPLY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 56-62P.

ABSTRACT: THE AVERAGE DAILY WATER USE AT A SINGLE-FAMILY

RESIDENCE WAS EXTRAPOLATED AS A USE FACTOR FOR OTHER CLASSES OF CUSTOMERS. THE CONCEPT APPEARS TO RESULT IN MORE EQUITABLE CHARGES THAN THOSE BASED ON EQUIVALENT METERS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011603

PUBLICATION DATE: SEP 84

TITLE: SEASONAL AND TIME-OF-DAY PRICING.

PERSONAL AUTHOR: RUSSELL, JOHN D.

DESCRIPTOR: *POLICIES; *RATE SETTING; *SEWER RATES; *WATER RATES; *WATER SUPPLY

DESCRIPTIVE NOTE: 63-65P.

ABSTRACT: THE QUESTION OF WHETHER SEASONAL RATES AFFECT THE DEMAND FOR WATER IS STILL BEING DEBATED. THIS ARTICLE CONSIDERS SOME OF THE VARIABLES INVOLVED IN A DIFFERENTIAL PRICING STRUCTURE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011604

PUBLICATION DATE: SEP 84

TITLE: IS HAZARDOUS WASTE DISPOSAL IN CLAY VAULTS SAFE?

PERSONAL AUTHOR: LEE, C. FRED; JONES, R. ANNE

DESCRIPTOR: *CLEANUP; *DETOXIFICATION; *HAZARDOUS WASTES; *MAINTENANCE; *MONITORING; *POLICIES; *PUBLIC HEALTH; *RECOMMENDATIONS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 66-73P.

ABSTRACT: HAZARDOUS WASTES, NO MATTER HOW CAREFULLY SEPARATED FROM THE ENVIRONMENT, MAY PLAGUE FUTURE GENERATIONS. THE AUTHORS QUESTION THE SAFETY AND ADEQUACY OF CLAY-LINED DISPOSAL PITS FOR CONTAINING THE MIGRATION OF LEACHATES FROM HAZARDOUS WASTES INTO GROUNDWATER SYSTEMS. APPROCHES TO ENSURE LONG-TERM PROTECTION OF PUBLIC HEALTH ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011605

PUBLICATION DATE: SEP 84

TITLE: EFFECTIVE MANGANESE REMOVAL USING LIME AS AN ADDITIVE.

PERSONAL AUTHOR: JENKINS, STEPHEN R.; AND OTHERS

DESCRIPTOR: *CALCIUM; *LIME; *MANGANESE; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 82-86P.

ABSTRACT: LIME ADDITION ENHANCED MANGANESE REMOVAL FROM A SURFACE WATER SUPPLY IN OKLAHOMA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N9

IRIS ACCESSION NUMBER: EW011606

PUBLICATION DATE: OCT 84

TITLE: OVERLAND FLOW/AN UPDATE - NEW INFORMATION IMPROVES RELIABILITY.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *LAND TREATMENT; *OVERLAND FLOW; *OPERATIONS (WASTEWATER); *OVERLAND FLOW; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS PUBLICATION PROVIDES RECENT INFORMATION ON OVERLAND FLOW FOR WASTEWATER TREATMENT.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011607

TITLE: EMERGING TECHNOLOGIES: ALTERNATIVE WASTEWATER COLLECTION SYSTEMS - PRACTICAL APPROACHES.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGIES; *COSTS; *PERFORMANCE EVALUATION; *SEWER SYSTEMS; *RURAL AREAS; *SMALL FLOWS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

ABSTRACT: THIS BROCHURE PRESENTS SEVERAL EMERGING TECHNOLOGIES FOR SMALL AND RURAL COMMUNITIES. TECHNOLOGIES DISCUSSED INCLUDE PRESSURE SEWER SYSTEMS, VACUUM SEWER SYSTEMS, AND SMALL DIAMETER GRAVITY SEWER SYSTEMS. ADVANTAGES, DISADVANTAGES, COSTS, AND LIMITATIONS ARE CONSIDERED.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011608

PUBLICATION DATE: SEP 83

TITLE: A PRACTICAL TECHNOLOGY: LAND APPLICATION OF SLUDGE - A VIABLE ALTERNATIVE.

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *COSTS; *LAND APPLICATION; *LAND TREATMENT; *OPERATIONS (WASTEWATER); *RESEARCH; *SLUDGE; *SEWAGE SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE LAND APPLICATION OF SEWAGE SLUDGE.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011609

PUBLICATION DATE: JUL 84

TITLE: A PRACTICAL TECHNOLOGY: HYDROGRAPH CONTROLLED RELEASE LAGOONS - A PROMISING MODIFICATION.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COSTS; *DESIGN; *FACILITIES; *LAGOONS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE USE OF HYDROGRAPH CONTROLLED RELEASE LAGOONS TO PROTECT WATER QUALITY OF RECEIVING STREAMS. INCLUDED ARE DISCUSSIONS OF OPERATIONS, ADVANTAGES, DESIGN, AND COSTS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 491 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011610

PUBLICATION DATE: SEP 83

TITLE: AN ALTERNATIVE TECHNOLOGY: METHANE RECOVERY - AN ENERGY RESOURCE.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COSTS; *ENERGY; *OPERATIONS (WASTEWATER); *METHANE; *RECYCLING; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE RECOVERY OF METHANE GAS FROM WASTEWATER TREATMENT OPERATIONS. INCLUDED ARE DISCUSSIONS OF RECOVERY, USE, LIMITATIONS, AND COSTS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011611

PUBLICATION DATE: JUL 83

TITLE: AN EMERGING TECHNOLOGY: AQUACULTURE - AN ALTERNATIVE WASTEWATER TREATMENT APPROACH.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *AQUACULTURE; *COSTS; *DESIGN; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE USE OF AQUACULTURE IN WASTEWATER TREATMENT. THE DISCUSSION INCLUDES A DESCRIPTION, DESIGN FACTORS, COSTS, AND OPERATION AND MAINTENANCE.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011612

PUBLICATION DATE: JUN 84

TITLE: A PRACTICAL TECHNOLOGY: COMPOSTING - A VIABLE METHOD OF RESOURCE RECOVERY.

DESCRIPTOR: *COMPOST; *COMPOSTING; *COSTS; *OPERATIONS (WASTEWATER); *RESOURCE RECOVERY; *RECYCLING; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DISCUSSES COMPOSTING OF SEWAGE SLUDGE AS A MEANS OF RESOURCE RECOVERY AND FOR REDUCING WASTE DISPOSAL PROBLEMS. DISCUSSED ARE THE TECHNOLOGY, COMPOSTING SYSTEMS, REACTOR SYSTEMS, NON-REACTOR SYSTEMS, COSTS, AND COMPOST USE.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011613

TITLE: FINANCIAL BUILDING BLOCKS...FOR SELF-SUSTAINING MUNICIPAL WASTEWATER FACILITIES.

DESCRIPTOR: *COSTS; *DESIGN; *CONSTRUCTION; *FINANCES; *FACILITIES; *OPERATIONS (WASTEWATER); *PLANNING; *REFERENCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 11P.

ABSTRACT: THIS BULLETIN CONSIDERS ELEMENTS OF FINANCING, PLANNING, DESIGNING, CONSTRUCTING, AND OPERATING WASTEWATER TREATMENT PLANTS. SUGGESTIONS FOR EACH PHASE OF THE OPERATION ARE GIVEN AND REFERENCES DEVELOPED BY EPA ARE LISTED.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011614

PUBLICATION DATE: SEP 83

TITLE: AN EMERGING TECHNOLOGY: WETLANDS TREATMENT - A PRACTICAL APPROACH.

DESCRIPTOR: *COSTS; *LAND APPLICATION; *LAND TREATMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PROCESS DESCRIPTION; *TECHNOLOGY; *WASTEWATER TREATMENT; *WETLANDS

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE CONSIDERS THE USE OF WETLANDS AS A PRACTICAL APPROACH TO WASTEWATER TREATMENT. THE DISCUSSION INCLUDES A DESCRIPTION OF THE TREATMENT PROCESS, LIMITATIONS, CAPITAL COSTS, AND OPERATION AND MAINTENANCE COSTS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011615

PUBLICATION DATE: SEP 83

TITLE: AN EMERGING TECHNOLOGY: SEQUENCING BATCH REACTORS - A PROJECT ASSESSMENT.

DESCRIPTOR: ACTIVATED SLUDGE; *BATCH REACTORS; *COSTS; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PROCESS DESCRIPTIONS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE USE OF SEQUENCING BATCH REACTORS FOR WASTEWATER TREATMENT. INFORMATION IS INCLUDED ON THE PROCESS, A DEMONSTRATION PLANT, COSTS, OPERATIONS, AND MAINTENANCE.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011616

PUBLICATION DATE: SEP 83

TITLE: A PRACTICAL TECHNOLOGY: RAPID INFILTRATION - A VIABLE LAND TREATMENT ALTERNATIVE.

DESCRIPTOR: *COSTS; *DESIGN; *LAND APPLICATION; *LAND TREATMENT; *PERFORMANCE EVALUATION; *PROCESS DESCRIPTIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DISCUSSES RAPID INFILTRATION, A LAND TREATMENT ALTERNATIVE. INCLUDED IN THE DISCUSSION ARE THE FOLLOWING TOPICS: (1) OBJECTIVE; (2) PROCESS DESCRIPTION; (3) DESIGN; (4) PERFORMANCE; (5) USE; (6) COSTS; (7) ADVANTAGES; AND (8) LIMITATIONS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011617

PUBLICATION DATE: JUN 83

TITLE: AN EMERGING TECHNOLOGY: INTRACHANNEL CLARIFICATION - A PROJECT ASSESSMENT.

DESCRIPTOR: *CLARIFICATION; *FACILITIES; *INTRACHANNEL CLARIFICATION; OXIDATION DITCH PROCESS; *OPERATIONS (WASTEWATER); *PILOT STUDIES; *PROCESS DESCRIPTIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES INTRACHANNEL CLARIFICATION FOR WASTEWATER TREATMENT. INFORMATION IS INCLUDED RELATING TO THE PROCESS, FIELD TESTING, AND PROJECTED ADVANTAGES.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011618

PUBLICATION DATE: JUL 83

TITLE: AN EMERGING TECHNOLOGY: THE BIOLOGICAL AERATED FILTER - A PROMISING BIOLOGICAL PROCESS.

DESCRIPTOR: *AERATED FILTERS; *BIOLOGICAL AERATED FILTERS; *COSTS; *FILTERS; *OPERATIONS (WASTEWATER); *PROCESS DESCRIPTIONS; *PERFORMANCE EVALUATION; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE BIOLOGICAL AERATED FILTER PROCESS FOR WASTEWATER TREATMENT. INCLUDED IS INFORMATION ON OPERATIONAL EXPERIENCES, LIMITATIONS, COSTS, AND ADVANTAGES.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011619

PUBLICATION DATE: JUL 83

TITLE: AN EMERGING TECHNOLOGY: COUNTER-CURRENT AERATION - A PROMISING PROCESS MODIFICATION.

DESCRIPTOR: *AERATION; *COSTS; *COUNTERCURRENT AERATION; *OPERATIONS (WASTEWATER); *PROCESS DESCRIPTIONS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE PRESENTS A DISCUSSION OF THE COUNTER-CURRENT AERATION PROCESS FOR WASTEWATER TREATMENT.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011620

PUBLICATION DATE: AUG 84

TITLE: LIME HANDLING SYSTEMS - PROBLEMS AND REMEDIES.

DESCRIPTOR: *HANDLING; *LIME; *OPERATIONS (WASTEWATER); *STORAGE; *TRANSPORT; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 7P.

ABSTRACT: THIS BROCHURE IS CONCERNED WITH LIME HANDLING SYSTEMS IN WASTEWATER TREATMENT. THE DISCUSSION INCLUDES: (1) THE LIME HANDLING SYSTEM; (2) LIME LOADING (UNLOADING); (3) LIME STORAGE; (4) LIME SLAKING; (5) LIME SLURRYING; (6) LIME SLURRY TRANSPORT AND (7) LIME SLURRY FEED. IN ADDITION, PROBLEMS AND REMEDIES ARE PRESENTED.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011621

PUBLICATION DATE: AUG 84

TITLE: GRANULAR ACTIVATED CARBON SYSTEMS - PROBLEMS AND REMEDIES.

DESCRIPTOR: *ACTIVATED CARBON; *GRANULAR ACTIVATED CARBON; *FACILITIES; *OPERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; *PROCESS DESCRIPTIONS; *PERFORMANCE EVALUATION; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 7P.

ABSTRACT: THIS BROCHURE DESCRIBES GRANULAR ACTIVATED CARBON SYSTEMS FOR WASTEWATER TREATMENT. OPERATIONAL PROBLEMS AND SUGGESTED REMEDIES ARE PRESENTED.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011622

PUBLICATION DATE: AUG 84

TITLE: TERTIARY GRANULAR FILTRATION - PROBLEMS AND REMEDIES.

DESCRIPTOR: *FILTRATION; MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PROCESS DESCRIPTIONS; *TERTIARY GRANULAR FILTRATION; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE USE OF TERTIARY GRANULAR FILTRATION FOR WASTEWATER TREATMENT. INCLUDED IN THE DISCUSSION ARE POTENTIAL PROBLEMS AND POSSIBLE SOLUTIONS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011623

PUBLICATION DATE: JUN 84

TITLE: AN EMERGING TECHNOLOGY: INTERMITTENT SAND FILTRATION - A PROCESS ASSESSMENT.

DESCRIPTOR: *COSTS; *DESIGN; *FILTERS; *FACILITIES; *INTERMITTENT SAND FILTERS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *ONSITE TREATMENT; *PERFORMANCE EVALUATION; *SMALL FLOWS; *PROCESS EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES THE USE OF INTERMITTENT SAND FILTERS FOR WASTEWATER TREATMENT OF SMALL WASTEWATER VOLUMES AND ONSITE TREATMENT.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011624

PUBLICATION DATE: JUN 84

TITLE: LAND TREATMENT: RAPID INFILTRATION - PLAN, DESIGN, AND CONSTRUCT FOR SUCCESS.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *FACILITIES; *LAND TREATMENT; *OPERATIONS (WASTEWATER); *RAPID INFILTRATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES LAND TREATMENT FOR WASTEWATER. INCLUDED IN THE DISCUSSION ARE SOILS, DESIGN, GROUNDWATER, CONSTRUCTION, AND CAUTIONS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011625

PUBLICATION DATE: AUG 84

TITLE: INNOVATIVE AND ALTERNATIVE (I/A) TECHNOLOGY: WASTEWATER TREATMENT TO IMPROVE WATER QUALITY AND REDUCE COSTS.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COSTS; *ENERGY; *INNOVATIVE TECHNOLOGY; *FUNDING; *EPA; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PROJECT DESCRIPTIONS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES INNOVATIVE AND ALTERNATIVE TECHNOLOGY FOR IMPROVING WASTEWATER TREATMENT TO IMPROVE WATER QUALITY AND TO REDUCE COSTS. ALTERNATIVE SYSTEMS ARE FULLY PROVEN SYSTEMS WHILE INNOVATIVE SYSTEMS ARE TREATMENT TECHNOLOGIES THAT ARE DEVELOPED, BUT NOT FULLY PROVEN. EXAMPLES OF BOTH ARE GIVEN.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011626

PUBLICATION DATE: MAY 84

TITLE: ROTATING BIOLOGICAL CONTACTORS (RBCS): CHECKLIST FOR A TROUBLE-FREE FACILITY.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *FACILITIES; *OPERATIONS (WASTEWATER); *PLANNING; *ROTATING BIOLOGICAL CONTACTORS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE PROVIDES A CHECKLIST FOR PLANNING, DESIGN, AND CONSTRUCTION CONSIDERATIONS FOR ROTATING BIOLOGICAL CONTACTORS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011627

PUBLICATION DATE: SEP 83

TITLE: LESS COSTLY WASTEWATER TREATMENT FOR YOUR TOWN.

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *COSTS; *CONSTRUCTION; *DESIGN; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RURAL AREAS; *SMALL FLOWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS BROCHURE DESCRIBES ALTERNATIVE SOLUTIONS FOR WASTEWATER TREATMENT. THE DISCUSSION STRESSES APPROPRIATE TECHNOLOGY FOR SMALL COMMUNITIES. ITEMS CONSIDERED INCLUDE COSTS AND SPECIAL CONSIDERATIONS.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011628

PUBLICATION DATE: SEP 84

TITLE: VALUE ENGINEERING FOR WASTEWATER TREATMENT WORKS.

DESCRIPTOR: *COSTS; *COST CONTROLS; *DESIGN; *ENGINEERING; *FACILITIES; *PLANNING; *VALUE ENGINEERING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS FACT SHEET DESCRIBES VALUE ENGINEERING FOR WASTEWATER TREATMENT WORKS. VALUE ENGINEERING IS A SPECIALIZED COST CONTROL TECHNIQUE APPLIED BY AN INDEPENDENT TEAM OF EXPERIENCED MULTIDISCIPLINARY PROFESSIONALS DURING THE DESIGN OF WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: OFFICE OF MUNICIPAL POLLUTION CONTROL, MUNICIPAL FACILITIES DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW011629

PUBLICATION DATE: 84

TITLE: PUMPS AND PUMPING.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *MANUALS; *MAINTENANCE; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *PUMPS; *SLIDES

DESCRIPTIVE NOTE: PRICE: $18.00. TEN SLIDE/TAPE SETS ARE ALSO AVAILABLE TO ACCOMPANY THE MANUAL. SLIDE SETS VARY IN PRICE FROM $25.00 TO $85.00 EACH. AN INSTRUCTOR'S GUIDE IS ALSO AVAILABLE FOR $30.00.

ABSTRACT: THIS MANUAL IS DESIGNED SPECIFICALLY FOR OPERATORS AND TECHNICIANS. IT COVERS THE THEORY OF OPERATION AND MAINTENANCE OF CENTRIFUGAL PUMPS. THE MANUAL IS DESIGNED TO BE USED WITH THE ACCOMPANYING SLIDES AND OVERHEADS. THE MATERIAL IS ADAPTABLE TO A THREE-DAY WORKSHOP OR TYPICAL CLASSROOM SETTING. IT WAS NOT INTENDED TO BE A SELF-STUDY COURSE, BUT COULD BE USED AS SUCH WITH SOME ASSISTANCE. EACH LESSON IS PRECEDED BY A SET OF PERFORMANCE OBJECTIVES AND CONCLUDES WITH A WORKSHEET BASED ON THOSE OBJECTIVES. ALSO AVAILABLE WITH THE MANUAL IS AN INSTRUCTOR'S GUIDE THAT CONTAINS LESSON PLANS, WRITTEN NARRATIVE FOR THE A/V MATERIALS AND ANSWERS TO THE WORKSHEET QUESTIONS. THE MANUAL IS DIVIDED INTO 12 LESSONS AS FOLLOWS: (1) CENTRIFUGAL PUMP THEORY; (2) CENTRIFUGAL PUMP TYPES; (3) PUMP NOMENCLATURE; (4) REPLACEMENT OF COMPONENTS; (5) SELECTION AND REPLACEMENT OF PACKING; (6) SELECTION AND REPLACEMENT OF MECHANICAL SEALS; (7) PUMP PIPING SYSTEMS; (8) PUMP HYDRAULICS; (9) OPERATING CONDITIONS; END-SUCTION AND SPLIT CASE; (10) OPERATING CONDITIONS; LINESHAFT TURBINES; (11) SPECIAL PUMPING UNITS; AND (12) ABNORMAL OPERATING CONDITIONS.

AVAILABILITY: ENVIRONMENTAL TRAINING CONSULTANTS, INC., P.O. BOX 2097, CORVALLIS, OR 97339

IRIS ACCESSION NUMBER: EW011630

PUBLICATION DATE: 84

TITLE: ELECTRICAL TRAINING MODULE: PROGRAM I - IV.

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *ELECTRICITY; *ELECTRICAL CONTROL PANELS; *POSTSECONDARY EDUCATION; *TRAINING; *VIDEOTAPES

DESCRIPTIVE NOTE: EACH VIDEOTAPE AND ONE COPY OF THE TEXT MATERIAL IS $85.00. ADDITIONAL TEXTS ARE AVAILABLE FOR $2.00 EACH.

ABSTRACT: THIS MODULE IS DIVIDED INTO FOUR PROGRAMS AND SEVEN PARTS (TAPES). EACH PROGRAM IS PRECEDED BY A SET OF PERFORMANCE OBJECTIVES AND CONCLUDES WITH A WORKSHEET BASED ON THOSE OBJECTIVES. THE PROGRAMS ARE ACCOMPANIED BY TEXTS DESIGNED TO BE USED WITH THE VIDEOTAPES DESCRIBED BELOW. EACH TEXT HAS OBJECTIVES, LISTS OF KEY WORDS, WRITTEN MATERIALS, SELF-TESTS AND A FINAL EXAM. THE PROGRAMS ARE: (1) BASICS OF ELECTRICITY; (2)CELECTRICAL CONTACTORS, TRANSFORMERS AND RELATED COMPONENTS; (3) MEASUREMENTS OF ELECTRICITY; AND (4) ELECTRICAL CONTROL PANELS.

AVAILABILITY: ENVIRONMENTAL TRAINING CONSULTANTS, INC., P.O. BOX 2097, CORVALLIS, OR 97339

IRIS ACCESSION NUMBER: EW011631

PUBLICATION DATE: OCT 84

TITLE: BACKFLOW PREVENTION DEVICE TESTER CERTIFICATION.

PERSONAL AUTHOR: GENTY, YVES R.

DESCRIPTOR: *BACKFLOW PREVENTION; *CERTIFICATION; *BACKFLOW; *COLORADO; *TRAINING; *WATER SUPPLY

DESCRIPTIVE NOTE: 1, 3, 5P.

ABSTRACT: DESCRIBED IS A CERTIFICATION PROGRAM FOR TESTERS OF BACKFLOW PREVENTION DEVICES FOR COLORADO.

AVAILABILITY: BACKFLOW PREVENTION; V1 N4

IRIS ACCESSION NUMBER: EW011632

PUBLICATION DATE: OCT 84

TITLE: SUPPLYING POTABLE WATER TO HOSPITALS.

PERSONAL AUTHOR: ANGELE, GUSTAVE J.

DESCRIPTOR: *BACKFLOW; *BACKFLOW PREVENTION; *HOSPITALS; *WATER SUPPLY

DESCRIPTIVE NOTE: 4-5P.

ABSTRACT: THIS IS PART 2 OF A TWO-PART ARTICLE. PART 1 APPEARED IN THE SEPTEMBER, 1984 ISSUE OF BACKFLOW PREVENTION. THIS ARTICLE DISCUSSES SUPPLYING WATER TO HOSPITALS AND PREVENTION OF CONTAMINATION OF WATER SUPPLIES WITHIN THE HOSPITAL AND BETWEEN THE HOSPITAL AND THE COMMUNITY. VARIOUS BACKFLOW PROBLEMS ARE DISCUSSED.

AVAILABILITY: BACKFLOW PREVENTION; V1 N4

IRIS ACCESSION NUMBER: EW011649

PUBLICATION DATE: DEC 75

TITLE: HANDBOOK FOR SEWER SYSTEM EVALUATION AND REHABILITATION. MCD-19.

DESCRIPTOR: *COSTS; *EVALUATION; *INFILTRATION; *INFLOW; *MAINTENANCE; *MANUALS; *REHABILITATION; *SEWERS; *SEWER SYSTEMS; *SURVEYS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 243P. PRICE: $15.58

ABSTRACT: THIS HANDBOOK IS NOT A DESIGN MANUAL. IT IS PRIMARILY A SUPPLEMENT FOR SEWER SYSTEM EVALUATION. IT CONTAINS TECHNICAL INFORMATION AND DESCRIBES THE METHODOLOGY NECESSARY FOR AN EFFECTIVE INVESTIGATION AND CORRECTION OF I/I CONDITIONS IN A SEWER SYSTEM. ALSO INCLUDED IS A SET OF COST CURVES SHOWING THE CORRELATION BETWEEN THE COST FOR EACH PHASE OF SEWER SYSTEM EVALUATION WORK AND VARIABLES

SUCH AS SEWER LENGTH, POPULATION, AND MAGNITUDE OF I/I.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011663

PUBLICATION DATE: NOV 76

TITLE: INDUSTRIAL COST RECOVERY SYSTEMS. MCD-44.

DESCRIPTOR: *COST RECOVERY SYSTEMS; *DESIGN; *GUIDELINES; *INDUSTRY; *INDUSTRIAL COST RECOVERY; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PLANNING; *RECORDS; *USEPA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 63P. PRICE: $4.78

ABSTRACT: THIS DOCUMENT OF SUPPLEMENTAL INFORMATION WAS INTENDED TO DESCRIBE THE ESSENTIAL REQUIREMENTS OF THE "FEDERAL GUIDELINES-INDUSTRIAL COST RECOVERY SYSTEMS" INDUSTRIAL COST RECOVERY (ICR) GUIDELINES AND OTHER RELATED REQUIREMENTS IN A FORMAT TO ASSIST IN THE DESIGN, INSTALLATION, AND IMPLEMENTATION OF SYSTEMS. CONTENTS INCLUDE: (1) ICR SYSTEM REQUIREMENTS; (2) DEVELOPING THE ICR SYSTEM; (3) FUNDS MANAGEMENT; AND (4) ICR DESIGN CHECKLIST.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011665

PUBLICATION DATE: 76

TITLE: MODEL FACILITY PLAN FOR A SMALL COMMUNITY. SUPPLEMENT TO: GUIDANCE FOR PREPARING A FACILITY PLAN. MCD-8.

DESCRIPTOR: *COMPLIANCE; *COSTS; *FACILITIES; *GUIDELINES; *OPERATIONS (WASTEWATER); *PLANNING; *RURAL AREAS; *USEPA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43P. PRICE: $3.58

ABSTRACT: THIS MODEL PLAN FOR A FICTITIOUS SMALL, RURAL COMMUNITY SUPPLEMENTS THE GUIDANCE FOR PREPARING A FACILITY PLAN, PUBLISHED IN MAY, 1975. THE PLAN IS FOR A SMALL COMMUNITY WITH RELATIVELY SIMPLE POLLUTION PROBLEMS TO COMPLY WITH FACILITY PLANNING REGULATIONS AND ASSURE COST-EFFECTIVE AND ENVIRONMENTALLY SOUND WASTE TREATMENT WORKS. THE PROBLEMS ADDRESSED ARE TYPICAL OF MANY SMALL COMMUNITIES WHICH DO NOT HAVE AN INFILTRATION/INFLOW PROBLEM; ARE LOCATED WITHEN EFFLUENT LIMITATION SEGMENTS; HAVE FEW ENVIRONMENTAL CONSTRAINTS; AND HAVE NO INDUSTRIES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011667

PUBLICATION DATE: FEB 79

TITLE: 1978 NEEDS SURVEY: COST METHODOLOGY FOR CONTROL OF COMBINED SEWER OVERFLOW AND STORMWATER DISCHARGE. FRD-3.

DESCRIPTOR: *CONSTRUCTION; *COSTS; *EPA; *FACILITIES; *OBJECTIVES; *PLANNING; *POLLUTION CONTROL; *NEEDS; *NEEDS SURVEYS; *SURVEYS; *SEWERS; *STORMWATER; *USEPA; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 484P. PRICE: 35.50. ORDER NO.: PB 296604/AS

ABSTRACT: THIS REPORT PRESENTS THE 1978 ESTIMATE OF NEEDS FOR CONTROL OF POLLUTION FROM COMBINED SEWER OVERFLOW AND URBAN STORMWATER RUNOFF AS WELL AS A DESCRIPTION OF THE CRITERIA, METHODS, AND ASSUMPTIONS USED TO DEVELOP THE NEEDS ESTIMATES. THIS REPORT CONTINUES THE SURVEY SERIES THAT WAS ESTABLISHED IN 1973 AND CONTINUED IN 1974 AND 1976. COST ESTIMATES ARE PROVIDED FOR ACHIEVING VARIOUS OBJECTIVES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011672

PUBLICATION DATE: AUG 84

TITLE: EPA'S INNOVATIVE TECHNOLOGY PROGRAM FOR WASTE WATER TREATMENT NEEDS BETTER CONTROLS. REPORT BY THE U.S. GENERAL ACCOUNTING OFFICE.

DESCRIPTOR: *EPA; *EVALUATION; *INNOVATIVE TECHNOLOGY; *FACILITIES; *INCENTIVES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TECHNOLOGY; *USEPA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 62P. FIRST FIVE COPIES FREE OF CHARGE; ADDITIONAL COPIES $3.25 EACH.

ABSTRACT: GAO REVIEWED 70 PROJECTS APPROVED FOR INNOVATIVE TECHNOLOGY PROGRAM FUNDING IN 11 STATES. GAO RECOMMENDED SEVERAL ACTIONS TO IMPROVE COMPLIANCE WITH PROGRAM OBJECTIVES. FURTHER EVALUATION OF OPERATIONS AND PROJECT RESULTS IS ALSO RECOMMENDED. ESTABLISHMENT OF A DEMONSTRATION PROGRAM WAS ALSO RECOMMENDED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW011673

PUBLICATION DATE: OCT 84

TITLE: WATER ANALYSIS. VOLUME 3. ORGANIC SPECIES.

PERSONAL AUTHOR: MINEAR, ROGER A., ED.; KEITH, LAWRENCE H., ED.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; *POSTSECONDARY EDUCATION; *WATER; *WATER ANALYSIS

DESCRIPTIVE NOTE: 480P. PRICE: $69.00

ABSTRACT: THE CHAPTERS IN THIS VOLUME REPRESENT A COLLECTION OF THE METHODOLOGY IN CURRENT USE, WHICH ACCOUNTS FOR THE MAJOR PORTION OF THE METHODS USED FOR ANALYSIS OF ORGANIC CONSTITUENTS IN WATER. TOGETHER WITH THE CHAPTERS ON ANALYSIS OF THE INORGANIC CONSTITUENTS IN WATER FROM THE FIRST TWO VOLUMES, THIS REPRESENTS A COMPREHENSIVE WORK ON WATER ANALYSIS. CONTENTS INCLUDE: (1) WASTE STRENGTH AND WATER POLLUTION PARAMETERS; (2) CHEMICAL NONSPECIFIC ORGANICS ANALYSIS; (3) CONCENTRATION, PARTITIONING, AND ISOLATION TECHNIQUES; (4) GAS CHROMATOGRAPHY; (5) ORGANIC MASS SPECTROMETRY AND ITS APPLICATION TO WATER ANALYSIS; (6) THE USE OF HPLC FOR WATER ANALYSIS; AND (7) INFRARED SPECTROPHOTOMETRY OF POLLUTANTS IN WATER SYSTEMS.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011675

PUBLICATION DATE: 84

TITLE: APPLIED ENVIRONMENTAL GEOCHEMISTRY.

PERSONAL AUTHOR: THORNTON, IAIN, ED.

DESCRIPTOR: *DISEASES; *ENVIRONMENT; *GEOCHEMISTRY; *HEALTH; *INSTRUCTIONAL MATERIALS; *METALS; *PLANTS; *POSTSECONDARY EDUCATION; *RADIOACTIVITY; *SOILS; *WATER QUALITY

DESCRIPTIVE NOTE: 528P. PRICE: $70.00. ORDER NO.: ISBN:0-12-690640-8

ABSTRACT: THIS PUBLICATION CONTAINS THE FOLLOWING TOPICS: (1) PRINCIPLES OF ENVIRONMENTAL GEOCHEMISTRY; (2) ANALYTICAL METHODS IN APPLIED ENVIRONMENTAL GEOCHEMISTRY; (3) THE CHEMICAL FORMS OF TRACE METALS IN SOILS; (4) REGIONAL GEOCHEMICAL MAPPING AND ITS APPLICATION TO ENVIRONMENTAL STUDIES; (5) SOILS AND PLANTS AND THE GEOCHEMICAL ENVIRONMENT; (6) GEOCHEMISTRY AND WATER QUALITY; (7) MICROBIAL MEDIATION OF BIOGEOCHEMICAL CYCLES; (8) GEOCHEMISTRY APPLIED TO AGRICULTURE; (9) GEOCHEMISTRY AND MAN-HEALTH AND DISEASE; (10) GEOMEDICINE IN SCANDINAVIA; (11) ASSESSMENT OF METAL POLLUTION IN SOILS; (12) ASSESSMENT OF METAL POLLUTION IN RIVERS AND ESTUARIES; (13) HEAVY METAL CONTAMINATION FROM MINING AND SMELTING: IMPLICATIONS FOR MAN AND HIS ENVIRONMENT; (14) HEALTH IMPLICATIONS OF COAL DEVELOPMENT; AND (15) PLANT NATURAL RADIOACTIVITY IN THE ENVIRONMENT.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011676

PUBLICATION DATE: 82

TITLE: MUNICIPAL WASTEWATER IN AGRICULTURE.

PERSONAL AUTHOR: D'ITRI, FRANK M., ED.

DESCRIPTOR: *AGRICULTURE; *DESIGN; *COSTS; *CONFERENCE PROCEEDINGS; *LEGAL ASPECTS; *LAND TREATMENT; *LAND USE; *OPERATIONS (WASTEWATER); *RESEARCH NEEDS; *WATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 512P. PRICE: $55.00. ORDER NO.: ISBN:0-12-214880-0

ABSTRACT: CONTENTS INCLUDE: (1) ADMINISTRATIVE AND LEGAL ASPECTS OF WASTEWATER RENOVATION AND REUSE; (2) REUSE ALTERNATIVES FOR MUNICIPAL WASTEWATER; (3) OPERATION OF LAND TREATMENT SYSTEMS; (4) PATHOGENS AND HEAVY METALS IN MUNICIPAL WASTEWATER; (5) DESIGN AND COST CRITERIA FOR LAND TREATMENT SYSYEMS AND (6) RESEARCH NEEDS FOR RENOVATION AND REUSE.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011681

TITLE: ENVIRONMENT AND SOLID WASTES: CHARACTERIZATION, TREATMENT, AND DISPOSAL.

PERSONAL AUTHOR: FRANCIS, CHESTER W.; AUERBACK, STANLEY I.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *ENVIRONMENT; *HAZARDOUS WASTES; *MANAGEMENT; *MONITORING; *POLLUTION CONTROL; *PUBLIC HEALTH; *SOLID WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 498P. PRICE: $49.95

ABSTRACT: THIS BOOK PRESENTS OVER 35 PAPERS THAT WERE DELIVERED AT THE FOURTH LIFE SCIENCES SYMPOSIUM ON ENVIRONMENT AND SOLID WASTES. SECTIONS INCLUDE SOURCES AND MANAGEMENT OF WASTES, PROBLEMS IN CHARACTERIZATION, TRANSPORT AND TRANSFORMATION, ENVIRONMENT AND HEALTH CONSEQUENCES, NEEDS AND CHALLENGES OF MONITORING, AND ENVIRONMENTAL CONTROL SYSTEMS (TECHNIQUES AND TECHNOLOGY). THE WIDE RANGE OF THE SPEAKERS PROMOTED COMMUNICATION AMONG THE SCIENTIFIC COMMUNITY AND TOOK A MULTIDIMENSIONAL LOOK AT IMPLICATIONS AND IMPACTS OF SOLID AND HAZARDOUS WASTE DISPOSAL.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW011682

PUBLICATION DATE: OCT 84

TITLE: CENTER FRAME: LARGE SCREEN PROJECTION.

PERSONAL AUTHOR: BEHREND, JACK

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTION; *PROJECTION SYSTEMS; *SCREENS

DESCRIPTIVE NOTE: 14-15, 47P.

ABSTRACT: THIS ARTICLE PROVIDES A DISCUSSION ON IMPORTANT ELEMENTS INVOLVED IN SETTING UP A LARGE SCREEN PROJECTION SYSTEM.

AVAILABILITY: TECHNICAL PHOTOGRAPHY; V16 N10

IRIS ACCESSION NUMBER: EW011683

PUBLICATION DATE: 1-2 84

TITLE: GUIDELINES ON THE USE AND ACCEPTABILITY OF OIL SPILL DISPERSANTS. SECOND EDITION.

PERSONAL AUTHOR: ABBOTT, F. S.

DESCRIPTOR: *DISPERSANTS; *GUIDELINES; *OIL SPILLS; *POLLUTION CONTROL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 6-10P.

ABSTRACT: THESE GUIDELINES ARE A REVISION OF GUIDELINES PRODUCED IN 1973. THE ARTICLE HIGHLIGHTS MAJOR CHANGES IN THE SECOND EDITION.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V9 N1

IRIS ACCESSION NUMBER: EW011684

PUBLICATION DATE: SUM 84

TITLE: TOXIC CONTAMINANTS IN WATER SUPPLIES AND THE IMPLICATIONS FOR POLICY.

PERSONAL AUTHOR: PAGE, G. WILLIAM

DESCRIPTOR: *CONTAMINATION; *DRINKING WATER; *CHEMICALS; *HEALTH; *HEAVY METALS; *ORGANIC CHEMICALS; *POLICIES; *PUBLIC HEALTH; *TOXIC CHEMICALS; *TOXIC SUBSTANCES; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 131-38P.

ABSTRACT: THIS PAPER DISCUSSES PROBLEMS ASSOCIATED WITH THE CONTAMINATION OF WATER SUPPLIES WITH TOXIC CHEMICALS. FIVE KEY QUESTIONS ARE ADDRESSED: (1) WHAT TOXIC CHEMICALS ARE FOUND IN OUR WATER RESOURCES? (2) WHAT ARE THE HEALTH IMPLICATIONS? (3) HOW DO WE IDENTIFY GROUNDWATER CONTAMINATED WITH TOXIC CHEMICALS? (4) HOW DO WE PROTECT THE PUBLIC FROM THE RISKS ASSOCIATED WITH CONSUMPTION OF WATER CONTAMINATED WITH TOXIC CHEMICALS? (5) WHAT ARE THE POLICY IMPLICATIONS?

AVAILABILITY: ENVIRONMENTALIST; V4 N2

IRIS ACCESSION NUMBER: EW011685

PUBLICATION DATE: OCT 84

TITLE: MANAGEMENT IN ACTION: IMPROVING EMPLOYEE EVALUATIONS.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *EVALUATION; *EMPLOYEE EVALUATION; *MANAGEMENT; *PERSONNEL; *PERFORMANCE EVALUATION; *PRODUCTIVITY; *RECOMMENDATIONS

DESCRIPTIVE NOTE: 22P.

ABSTRACT: THIS ARTICLE PRESENTS SUGGESTIONS FOR IMPROVING EMPLOYEE EVALUATIONS AND ALSO PROVIDES A LIST OF CRITERIA FOR PERFORMANCE EVALUATION RELATED TO JOB COMPATIBILITY AND PEOPLE COMPATIBILITY.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N11

IRIS ACCESSION NUMBER: EW011686

PUBLICATION DATE: OCT 84

TITLE: MEASURING DIFFERENTIAL PRESSURE ACCURATELY IN WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: WALSKI, THOMAS

DESCRIPTOR: *FLOW MEASUREMENT; *INSTRUMENTATION; *MEASUREMENT; *WATER MAINS; *WATER DISTRIBUTION; *WATER PRESSURE

DESCRIPTIVE NOTE: 28-30P.

ABSTRACT: A PILOT TUBE CAN BE USED TO MEASURE VELOCITY IN A WATER MAIN, BUT IT REQUIRES AN AUXILIARY DEVICE TO SENSE DIFFERENTIAL PRESSURE, WHICH CAN THEN BE CONVERTED INTO A VELOCITY READING.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N11

IRIS ACCESSION NUMBER: EW011687

PUBLICATION DATE: OCT 84

TITLE: PRESSURE RECORDERS IN THE RIGHT PLACES MAKE A BETTER DISTRIBUTION SYSTEM.

PERSONAL AUTHOR: GORISCH, JOHN

DESCRIPTOR: *INSTRUMENTATION; *MEASUREMENT; *MONITORING; *WATER MAINS; *WATER DISTRIBUTION; *WATER PRESSURE

DESCRIPTIVE NOTE: 30-31P.

ABSTRACT: CIRCULAR-CHART PRESSURE RECORDS PLACED IN KEY POSITIONS HAVE GIVEN THIS WATER DEPARTMENT A PRACTICAL AND

INEXPENSIVE MONITORING CAPABILITY, WHICH HAS HELPED SOLVE SOME PROBLEMS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N11

IRIS ACCESSION NUMBER: EW011688

PUBLICATION DATE: OCT 84

TITLE: NEW TOOL REJUVENATES OLD COMPANY'S PIPES.

DESCRIPTOR: *CLEANING; *MAINTENANCE; *PIPES; *WATER MAINS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 32-33P.

ABSTRACT: A SPECIALLY DEVISED MULTI-BLADED CLEANING TOOL WAS SENT THROUGH A SECTION OF HEAVILY ENCRUSTED MAIN OWNED BY A VERY OLD WATER COMPANY. VERY LITTLE SHUTDOWN TIME WAS REQUIRED TO RESTORE MUCH OF THE LINES ABILITY TO TRANSPORT WATER COST-EFFECTIVELY.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N11

IRIS ACCESSION NUMBER: EW011689

PUBLICATION DATE: OCT 84

TITLE: RETRENCHMENT MANAGEMENT: OR HOW TO COPE WITH FEWER TAX DOLLARS.

PERSONAL AUTHOR: KEMP, ROGER L.

DESCRIPTOR: *COSTS; *EFFICIENCY; *LOCAL GOVERNMENT; *MANAGEMENT; *PLANNING; *POLICIES; *RETRENCHMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: REDUCED TAX REVENUES ARE FORCING MUNICIPAL MANAGERS TO SEARCH FOR COST-CUTTING IDEAS. THERE ARE A VARIETY OF RETRENCHMENT MANAGEMENT TECHNIQUES TO WHICH THEY CAN TURN. THESE METHODS CAN BE USED TO EXTEND THE REACH OF LIMITED FUNDS-AND STILL EXPAND PUBLIC SERVICES.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N11

IRIS ACCESSION NUMBER: EW011697

PUBLICATION DATE: OCT 84

TITLE: A SURVEY OF COMBINED TRICKLING FILTER AND ACTIVATED SLUDGE PROCESSES.

PERSONAL AUTHOR: HARRISON, JOHN R.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *COMBINED PROCESSES; *COSTS; *FILTERS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SURVEYS; *TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1073-79P.

ABSTRACT: FORTY-THREE PLANTS WERE CONTACTED FOR INFORMATION ON TREATMENT PROCESSES COMBINING TRICKLING FILTERS AND ACTIVATED SLUDGE. PLANT OPERATORS GIVE THE COMBINED SYSTEMS HIGH MARKS FOR THEIR ABILITY TO HANDLE SHOCK LOADS, PROCESS FLEXIBILITY, AND EASE OF OPERATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011698

PUBLICATION DATE: OCT 82

TITLE: OPTIMIZATION OF A WASTEWATER TREATMENT PLANT BY THE EMPLOYEE INVOLVEMENT OPTIMIZATION SYSTEM (EIOS).

PERSONAL AUTHOR: SPRINGER, A. M.; AND OTHERS

DESCRIPTOR: *EMPLOYEE INVOLVEMENT; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PERSONNEL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1080-92P.

ABSTRACT: PLANT MANAGERS AND OPERATORS ARE A VALUABLE RESOURCE THAN CAN BE USED TO TEST NEW OR IMPROVED OPERATING PROCEDURES. THIS PAPER DISCUSSES TWO OPTIMIZATION STRATEGIES FOR IMPROVING PRACTICES TO OBTAIN HIGHER QUALITY EFFLUENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011699

PUBLICATION DATE: OCT 84

TITLE: CASE HISTORY OF INDUSTRIAL PRETREATMENT IN COLUMBUS, OHIO.

PERSONAL AUTHOR: STONEROOK, H.; AND OTHERS

DESCRIPTOR: *CASE HISTORIES; *INDUSTRIAL WASTES; *INDUSTRY; *METALS; *MONITORING; *OPERATIONS (WASTEWATER); *OHIO; *PRETREATMENT; *PRIORITY POLLUTANTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1093-98P.

ABSTRACT: DESCRIBED IS AN INDUSTRIAL PRETREATMENT PROGRAM IN COLUMBUS, OHIO. TREATMENT MONITORING COSTS WILL BE RECOVERED THROUGH "COMMODITY SPECIFIC" AND "CUSTOMER SPECIFIC" CHARGES IN THE SEWER USE ORDINANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011700

PUBLICATION DATE: OCT 84

TITLE: ON-LINE MONITORING DATA REPLACES ANALYTICAL DATA.

PERSONAL AUTHOR: WINTER, FREDERIC J.; OGLE, DALE F.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COSTS; ILLINOIS; LABORATORY PROCEDURES; *MONITORING; *OPERATIONS (WASTEWATER); *ONLINE MONITORING; *PERFORMANCE EVALUATION; *SUSPENDED SOLIDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1099-1103P.

ABSTRACT: DESCRIBED IS AN ONLINE MONITORING SYSTEM USED IN AN ILLINOIS WASTEWATER SYSTEM. ALONG WITH DECREASING THE NUMBER OF SUSPENDED SOLIDS ANALYSES NEEDED, ON-LINE MONITORING LEADS TO MORE CONSISTENT PLANT PERFORMANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011701

PUBLICATION DATE: OCT 84

TITLE: DEMONSTRATION OF RAPID INFILTRATION TECHNOLOGY, ISMAILIA, EGYPT.

PERSONAL AUTHOR: LEVINE, PAUL E.

DESCRIPTOR: *EGYPT; *INFILTRATION; *IRRIGATION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RAPID INFILTRATION; *RECYCLING; *WATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1104-09P.

ABSTRACT: DESCRIBED IS A RAPID INFILTRATION SYSTEM IN EGYPT. WITH THE EXCEPTION OF SALINITY AND NITRATE, THE PERCOLATE MET ALL GENERALLY ACCEPTED GUIDELINES FOR IRRIGATION WATER SOURCES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011702

PUBLICATION DATE: OCT 84

TITLE: AN INNOVATIVE PROCESS FOR TREATMENT RECYCLED COOLING WATER.

PERSONAL AUTHOR: BATCHELOR, B.; MCDEVITT, M.

DESCRIPTOR: *COOLING WATER; *COSTS; *LIME; *PERFORMANCE EVALUATION; *RECYCLING; *SILICA; *WATER CONSERVATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 1110-17P.

ABSTRACT: DESCRIBED IS AN INNOVATIVE PROCESS FOR TREATING RECYCLED COOLING WATER. THE KINETICS OF SILICA REMOVAL BY AN ULTRA-HIGH LIME PROCESS ARE RAPID ENOUGH FOR COMPLETE REACTION AT NORMAL RETENTION TIMES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011703

PUBLICATION DATE: OCT 84

TITLE: A METHOD FOR ESTABLISHING SITE-SPECIFIC STREAM DESIGN FLOWS FOR WASTELOAD ALLOCATIONS.

PERSONAL AUTHOR: BISWAS, H.; BELL, B. A.

DESCRIPTOR: *MODELING; *MODELS; *STREAM DESIGN FLOWS; *WASTELOAD ALLOCATIONS; *WATER QUALITY

DESCRIPTIVE NOTE: 1123-30P.

ABSTRACT: THE MAJOR OBJECTIVE OF THIS STUDY WAS TO DEVELOP A SCIENTIFIC METHOD FOR ESTABLISHING THE STREAM DESIGN FLOW FOR USE IN WATER QUALITY MODELING. WITH THE PROPOSED METHOD, ALMOST TWICE THE WASTE LOAD OF MANY POLLUTANTS MAY BE DISCHARGED THAN MAY BE USING THE 7-DAY, 10-YEAR LOW FLOW BASIS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011704

PUBLICATION DATE: OCT 84

TITLE: STATUS OF WATER QUALITY MODELING IN THE PULP AND PAPER INDUSTRY.

PERSONAL AUTHOR: FIRTH, BARRY K.

DESCRIPTOR: *INDUSTRIAL WASTES; INDUSTRY; *MODELING; *NCASI; *PAPER INDUSTRY; *PULP INDUSTRY; *REVIEWS; *WASTE TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1131-35P.

ABSTRACT: THE OBJECTIVE OF THIS PAPER IS TO SUMMARIZE THE SIGNIFICANT FINDINGS OF THE NCASI MODELING PROGRAM. TO DATE, THE MAIN FOCUS HAS BEEN MAINTAINING DO STANDARDS, BUT ADVANCES HAVE BEEN MADE IN INPUT PARAMETER ESTIMATION, MODEL SELECTION, AND VERIFICATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N10

IRIS ACCESSION NUMBER: EW011705

PUBLICATION DATE: AUG 84

TITLE: ELECTRODIALYSIS DESALINATION. 1970-JULY, 1984 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *DESALINATION; *ELECTRODIALYSIS; *EQUIPMENT; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; WATER; *WATER RESOURCES

DESCRIPTIVE NOTE: 105P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-873454

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF ELECTRODIALYSIS TECHNIQUES AND EQUIPMENT IN THE DESALINATION OF SEA WATER, BRACKISH WATER, AND WASTE WATERS. TOPICS INCLUDE PLANT OPERATIONS AND PERFORMANCE EVALUATIONS, MEMBRANE PROCESSES, HYDRODYNAMICS, AND SURFACE FOULING. THEORETICAL STUDIES OF ELECTRODIALYSIS PROCESSES ARE TREATED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 146 CITATIONS, 27 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011706

PUBLICATION DATE: AUG 84

TITLE: SEWAGE EFFECTS IN MARINE AND ESTUARINE ENVIRONMENTS. 1977-AUGUST, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *EFFLUENTS; *ENVIRONMENTAL IMPACT; *ESTUARIES; *OCEANS; *OCEAN DUMPING; *RESEARCH; *SEWAGE; *WASTE DISPOSAL; *WASTEWATER

DESCRIPTIVE NOTE: 186P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-873694

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE EFFECTS THAT SEWAGE EFFLUENTS AND SLUDGE HAVE UPON MARINE AND ESTUARINE ENVIRONMENTS. THE EFFECTS ON MARINE PLANTS AND ANIMALS, PROBLEMS DUE TO OCEAN DUMPING, DISPERSION STUDIES, WATER CHEMISTRY, AND OTHER RELATED TOPICS ARE INCLUDED. REGIONAL AND SITE STUDIES REGARDING ENVIRONMENTAL EFFECTS OF OCEAN WASTE DISPOSAL AND SEWAGE DISPOSAL ARE PRESENTED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 205 CITATIONS, 30 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011707

PUBLICATION DATE: JUN 84

TITLE: HYDROLOGICAL SIMULATION PROGRAM - FORTRAN (HSPF): USERS MANUAL FOR RELEASE 8.0.

PERSONAL AUTHOR: JOHANSON, R. C.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *HYDROLOGY; *MANUALS; *SIMULATIONS; *USER MANUALS; *WATER QUALITY

DESCRIPTIVE NOTE: 776P. PRICE CODE: PC A99/MF E04. ORDER NO.: PB84-224385

ABSTRACT: THE HYDROLOGICAL SIMULATION PROGRAM--FORTRAN (HSPF) IS A SET OF COMPUTER CODES THAT CAN SIMULATE THE HYDROLOGIC, AND ASSOCIATED WATER QUALITY, PROCESSES ON PERVIOUS AND IMPERVIOUS LAND SURFACES AND IN STREAMS AND WELL MIXED IMPOUNDMENTS. THE MANUAL DISCUSSES THE MODULAR STRUCTURE OF THE SYSTEM, THE PRINCIPLES OF STRUCTURED PROGRAMMING TECHNOLOGY, AND THE USE OF THESE PRINCIPLES IN THE CONSTRUCTION OF THE HSPF SOFTWARE. IN ADDITION TO A PICTORIAL REPRESENTATION OF HOW EACH OF THE 500 SUBPROGRAMS FITS INTO THE SYSTEM, THE MANUAL PRESENTS A DETAILED DISCUSSION OF THE ALGORITHMS USED TO SIMULATE VARIOUS WATER QUALITY AND QUANTITY PROCESSES. DATA USEFUL TO THOSE WHO NEED TO INSTALL, MAINTAIN, OR ALTER THE SYSTEM OR WHO WISH TO EXAMINE ITS STRUCTURE IN GREATER DETAIL ALSO PRESENTED. THE MANUAL IS AN UPDATE OF USERS MANUAL FOR HYDROLOGICAL SIMULATION PROGRAM--FORTRAN (HSPF), EPA-600/9-80-015.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011708

PUBLICATION DATE: 84

TITLE: SURVEY OF EMPLOYMENT OPPORTUNITIES IN WATER RESOURCES. 1984 EDITION.

DESCRIPTOR: *CONSULTING FIRMS; *EMPLOYMENT OPPORTUNITIES; *INDUSTRY; *MANUFACTURERS; *STATE AGENCIES; *SURVEYS; *UNIVERSITIES; *WATER RESOURCES

DESCRIPTIVE NOTE: PRICE: $10.00

ABSTRACT: THIS SURVEY WAS DESIGNED TO PROVIDE INFORMATION ON CONSULTING FIRMS AND MANUFACTURERS WHO ARE POTENTIAL EMPLOYERS OF INDIVIDUALS TRAINED IN ANY OF THE VARIOUS DISCIPLINES CONCERNED WITH WATER RESOURCES. THE SURVEY WAS UNDERTAKEN BECAUSE THE FIELD OF WATER RESOURCES COVERS MANY DISCIPLINES AND NO SATISFACTORY JOB PLACEMENT INFORMATION WAS AVAILABLE. YOU WILL FIND INFORMATION ON A WIDE RANGE OF EMPLOYERS IN THE PRIVATE SECTOR, STATE AGENCIES, AND UNIVERSITIES WHO HAVE WATER RESOURCES RELATED INTERESTS. THE SURVEY WAS COMPILED BY THE STUDENT CHAPTER OF THE UNIVERSITY OF MINNESOTA, WITH ASSISTANCE FROM THE AWRA NATIONAL HEADQUARTERS, AS A PUBLIC SERVICE ENDEAVOR.

AVAILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410

GROSVENOR LANE, SUITE 220, BETHESDA, MD 20814

IRIS ACCESSION NUMBER: EW011710

PUBLICATION DATE: 80

TITLE: PUBLIC PARTICIPATION IN ENVIRONMENTAL DECISION MAKING: STRATEGIES FOR CHANGES. PROCEEDINGS OF A NATIONAL WORKSHOP.

PERSONAL AUTHOR: SADLER, BARRY, ED.

DESCRIPTOR: *CANADA; *CHANGE PROCESS; *CONFERENCE PROCEEDINGS; *DECISION MAKING; *ENVIRONMENT; *EVALUATION; *MANAGEMENT; *PLANNING; *PROGRAM DEVELOPMENT; *PUBLIC PARTICIPATION; *POLICY DEVELOPMENT

DESCRIPTIVE NOTE: 184P.

ABSTRACT: THE WORKSHOP PROCEEDINGS REPRESENT A RESOURCE DOCUMENT WHICH PROVIDES BROAD STRATEGIES FOR INTEGRATING PUBLIC INVOLVEMENT INTO THE ENVIRONMENTAL DECISION-MAKING PROCESS. EACH PROBLEM AREA WAS THE SUBJECT OF A THREE-PHASE REVIEW. MOST OF THE MATERIALS FOCUS ON THE CANADIAN SITUATION.

AVAILABILITY: ENVIRONMENT COUNCIL OF ALBERTA, 2100 COLLEGE PLAZA, 8215 - 112 STREET, TOWER 3, EDMONTON, ALBERTA T6G 2M6 CANADA

IRIS ACCESSION NUMBER: EW011711

PUBLICATION DATE: MAR 84

TITLE: WETLANDS OF THE UNITED STATES: CURRENT STATUS AND RECENT TRENDS.

DESCRIPTOR: *NATURAL RESOURCES; *TRENDS; *VALUES; *WETLANDS; *UNITED STATES

DESCRIPTIVE NOTE: 59P. PRICE: $3.00. GPO STOCK#: 024-010-00656-1

ABSTRACT: THIS IS A POPULAR REPORT PREPARED BY THE U.S. FISH AND WILDLIFE SERVICE TO INFORM THE GENERAL PUBLIC, GOVERNMENT AGENCIES, PRIVATE INDUSTRY AND OTHERS ABOUT THE PRESENT STATUS OF U.S. WETLANDS. THE REPORT ALSO IDENTIFIES WHERE WETLANDS ARE IN GREATEST JEOPARDY FROM THE NATIONAL STANDPOINT AND PRESENTS EXISTING INFORMATION ON WETLAND TRENDS. IT INCLUDES GENERAL DISCUSSIONS OF THE CONCEPT OF WETLAND, MAJOR U.S. WETLAND TYPES, AND WETLAND VALUES. THE FUTURE OF AMERICA'S REMAINING WETLANDS IS ALSO DISCUSSED.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW011712

PUBLICATION DATE: FALL 84

TITLE: PROCEEDINGS OF THE SECOND NATIONAL SYMPOSIUM AND EXPOSITION ON GROUND WATER INSTRUMENTATION.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *GROUNDWATER; *EQUIPMENT; *INSTRUMENTATION; *MONITORING; *POLLUTION CONTROL; *SAMPLING; *TECHNOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 31-192P.

ABSTRACT: THIS ISSUE IS THE PROCEEDINGS OF THE SECOND NATIONAL SYMPOSIUM AND EXPOSITION ON GROUND WATER INSTRUMENTATION. SECTIONS ARE INCLUDED ON: (1) GROUND WATER SAMPLING DEVICES, (2) SURFACE GEOPHYSICAL EQUIPMENT, (3) GROUND WATER MONITORING TECHNOLOGY, (4) WALL TESTING EQUIPMENT AND TECHNIQUES, (5) VADOS ZONE MONITORING EQUIPMENT, AND (6) BOREHOLE GEOPHYSICAL EQUIPMENT.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V4 N4

IRIS ACCESSION NUMBER: EW011713

PUBLICATION DATE: SEP 84

TITLE: HAZARDOUS MATERIALS EMERGENCY RESPONSE TRAINING: THE COLORADO TRAINING INSTITUTE.

PERSONAL AUTHOR: COLE, LESLIE

DESCRIPTOR: *HAZARDOIS MATERIALS; *INDUSTRIAL WASTES; *PROGRAM DESCRIPTIONS; *STATE PROGRAMS; *SAFETY; SAFETY EDUCATION; *TRANSPORTATION; *TRAINING OBJECTIVES; TRAINING

DESCRIPTIVE NOTE: 12P. PRICE: SINGLE COPIES FREE TO STATE OFFICIALS; $4.00 EACH TO ALL OTHERS.

ABSTRACT: THE COLORADO TRAINING INSTITUTE (CTI), ESTABLISHED IN 1980, IS A NON-PROFIT, INSTRUCTIONAL PROGRAM DEVOTED TO PROMOTING HAZARDOUS MATERIALS SAFETY THROUGH EDUCATION. IT HAS TRAINED OVER 3,000 EMERGENCY RESPONSE PERSONNEL AND INDUSTRY OFFICIALS AND IS A UNIQUE EXAMPLE OF THE PRIVATE AND PUBLIC SECTORS WORKING TOGETHER TO PROTECT THE PUBLIC FROM INJURY, DEATH, OR OTHER LOSSES RESULTING FROM THE TRANSPORTATION OF HAZARDOUS MATERIALS. THIS DOCUMENT PROVIDES BACKGROUND INFORMATION ON THE CTI AND DESCRIPTIONS AND OBJECTIVES OF FOUR CTI TRAINING PROGRAMS: A 3-DAY HAZARDOUS MATERIALS AWARENESS SEMINAR; A 2-WEEK HAZARDOUS MATERIALS TRAINING COURSE; A 5-DAY SHIPPERS AND CARRIERS SEMINAR; AND A 5-DAY COURSE WHICH INCLUDES SEMINARS ON INSPECTION AND COMPLIANCE OF CARGO TANKS AND COMMERCIAL VEHICLES. DESCRIPTIONS OF TRAINING PROGRAMS IN GEORGIA, PENNSYLVANIA, AND WISCONSION, AS WELL AS DESCRIPTIONS OF STATE TRAINING FOR HAZARDOUS MATERIALS EMERGENCY RESPONSE AND THE DUTIES AND LOCATION OF STATE EMERGENCY RESPONSE TEAMS ARE ALSO PROVIDED. IT IS POINTED OUT THAT THE ROLE OF THE STATES IN HAZARDOUS MATERIALS REGULATION, COUPLED WITH LIMITED FUNDS, HAS PRESSURED STATES TO FIND INNOVATIVE AND MORE COORDINATED APPROACHES TO ENFORCE REGULATIONS AND PROVIDE ADEQUATE TRAINING, AND THAT CTI IS A GOOD EXAMPLE OF

ONE STATE'S RESPONSE TO MEETING THIS NEED.

AVAILABILITY: THE COUNCIL OF STATE GOVERNMENTS, P. O. BOX 11910, IRON WORKS PIKE, LEXINGTON, KY 40578

IRIS ACCESSION NUMBER: EW011714

PUBLICATION DATE: OCT 84

TITLE: A/C INTERFACE: EXPERT SYSTEMS, PART II.

PERSONAL AUTHOR: DESSY, RAYMOND E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ARTIFICAL INTELLIGENCE; *CHEMISTRY; *CHEMICAL ANALYSIS; *LABORATORY PROCEDURES

DESCRIPTIVE NOTE: 1312A-14A, 1316AP.

ABSTRACT: DISCUSSES WORKING IMPLEMENTATIONS OF ARTIFICIAL INTELLIGENCE SYSTEMS FOR CHEMICAL LABORATORY APPLICATIONS. THEY INCLUDE EXPERT SYSTEMS FOR LIQUID CHROMATOGRAPHY, SPECTRAL ANALYSIS, INSTRUMENT CONTROL OF A TOTALLY COMPUTERIZED TRIPLE-QUADRUPOLE MASS SPECTRORMETER, AND THE DETERMINATION OF THE MINERAL CONSTITUTENTS OF A ROCK SAMPLE GIVEN THE POWDER DIFFRACTION SPECTRUM OF THAT SAMPLE.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N12

IRIS ACCESSION NUMBER: EW011715

PUBLICATION DATE: OCT 84

TITLE: ANALYZING CHEMICAL DATA WITH COMPUTERS: ERRORS & PITFALLS.

PERSONAL AUTHOR: SHUKLA, SHYAM S.; RUSLING, JAMES F.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *COMPUTATION; *COMPUTATIONAL ERRORS; *CHEMISTRY; *CHEMICAL ANALYSIS; *DATA ANALYSIS; *STATISTICS

DESCRIPTIVE NOTE: 1347A-48A, 1350AP.

ABSTRACT: DISCUSSES HOW COMPUTATIONAL ERRORS ARISE IN ANALYSIS OF DATA AND HOW THEY CAN BE MINIMIZED. SHOWS THAT ALL COMPUTATIONS ARE SUBJECT TO ROUNDOFF/TRUNCATION ERRORS AND HOW SUCH ERRORS ARE PROPAGATED AND INFLUENCE THE STABILITY AND CONDITION OF A REACTION. APPLICATIONS TO PROCEDURES USED IN ANALYTICAL CHEMISTRY ARE ADDRESSED.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N12

IRIS ACCESSION NUMBER: EW011716

PUBLICATION DATE: OCT 84

TITLE: SPECTROPHOTOMETRIC DETERMINATION OF NITRITE IN WATERS WITH 5, 7-DIHYDROXY-4-IMINO-2-OXOCHROMAN.

PERSONAL AUTHOR: NAKAMURA, MOTOSHI; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY PROCEDURES; *NITRITES; *SPECTROPHOTOMETRY; *WATER

DESCRIPTIVE NOTE: 2242-44P.

ABSTRACT: THIS ARTICLE DESCRIBES A SPECTROPHOTOMETRIC PROCEDURE FOR DETERMINING NITRITE IN WATER.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N12

IRIS ACCESSION NUMBER: EW011717

PUBLICATION DATE: NOV 84

TITLE: COMPUTER-BASED INDUSTRIAL TRAINING: A PRIMER.

PERSONAL AUTHOR: GOVAERTS, KENNETH C.; GRILLOT, THOMAS A.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER BASED INSTRUCTION; *INSTRUCTION; *RECOMMENDATIONS; *TRAINING

DESCRIPTIVE NOTE: 28-31P.

ABSTRACT: THE USES OF COMPUTER-BASED TRAINING KEEP INCREASING. THIS ARTICLE PRESENTS SEVERAL ADVANTAGES AND DISADVANTAGES OF SUCH PROGRAMS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N11

IRIS ACCESSION NUMBER: EW011718

PUBLICATION DATE: NOV 84

TITLE: WRITING MORE BUT ENJOYING IT LESS?

PERSONAL AUTHOR: BOOHER, DIANNA

DESCRIPTOR: *COMMUNICATION; *RECOMMENDATIONS; *WRITING

DESCRIPTIVE NOTE: 48-51P.

ABSTRACT: THIS ARTICLE PROVIDES ADVICE ON IMPROVING WRITING SKILLS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V39 N11

IRIS ACCESSION NUMBER: EW011719

PUBLICATION DATE: NOV 84

TITLE: COMPETENCY-BASED TRAINING EVALUATION.

PERSONAL AUTHOR: MOORE, ELIZABETH RANDALL

DESCRIPTOR: *COMPETENCY BASED INSTRUCTION; *EVALUATION; *PERFORMANCE EVALUATION; *TRAINING

DESCRIPTIVE NOTE: 92-94P.

ABSTRACT: DESCRIBED IS A COMPETENCY BASED TRAINING EVALUATION APPROACH. WHILE THE DESIGN WAS USED WITH AN INSURANCE COMPANY, THE MODEL CAN BE USED WITH OTHER GROUPS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N11

IRIS ACCESSION NUMBER: EW011720

PUBLICATION DATE: NOV 84

TITLE: ATTRIBUTION THEORY AND MANAGEMENT EDUCATION.

PERSONAL AUTHOR: FREEDMAN, STUART C.

DESCRIPTOR: *ATTRIBUTION THEORY; *EMPLOYEE EVALUATION; *MANAGEMENT; *ORGANIZATIONAL PROBLEMS; *PERFORMANCE EVALUATION; *PROBLEM DIAGNOSIS; *PRODUCTIVITY; *TRAINING

DESCRIPTIVE NOTE: 95-99P.

ABSTRACT: THIS ARTICLE EXAMINES THE ORGANIZATIONAL PROBLEM OF ATTRIBUTION AND ITS IMPLICATIONS FOR PROBLEM DIAGNOSIS, PERFORMANCE EVALUATION, AND MANAGEMENT EDUCATION. ATTRIBUTION IS THE PROCESS OF MAKING INFERENCES ABOUT THE MOTIVES UNDERLYING ANOTHER'S BEHAVIOR.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N11

IRIS ACCESSION NUMBER: EW011721

PUBLICATION DATE: OCT 84

TITLE: AN OVERVIEW OF WATER TREATMENT PRACTICES IN THE UNITED STATES.

PERSONAL AUTHOR: STACHA, JOHN H.; PONTIUS, FREDERICK W.

DESCRIPTOR: *DESIGN; *FACILITIES; *HISTORY; *OPERATIONS (WATER); *REGULATIONS; *TRENDS; *UNITED STATES; *WATER TREATMENT; *WATER UTILITIES; *WATER QUALITY

DESCRIPTIVE NOTE: 73-85P.

ABSTRACT: A HISTORY OF WATER TREATMENT PRACTICES AND WATER QUALITY REGULATIONS IN THE UNITED STATES PROVIDES THE BACKGROUND FOR CURRENT TRENDS. NEW DEVELOPMENTS THAT ARE COMING INTO USE TO ADDRESS NEW CONCERNS ARE ALSO DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N10

IRIS ACCESSION NUMBER: EW011722

PUBLICATION DATE: OCT 84

TITLE: SCUBA DIVING: A TOOL FOR MANAGING WATER QUALITY.

PERSONAL AUTHOR: MEANS, EDWARD G.; AND OTHERS

DESCRIPTOR: *CALIFORNIA; *MONITORING; *MANAGEMENT; *RESERVOIRS; *SCUBA DIVERS; *WATER RESOURCES; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 86-92P.

ABSTRACT: INFORMATION GATHERED BY SCUBA DIVERS AUGMENTS LABORATORY ANALYSES OF WATER QUALITY. THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA HAS TRAINED AND USED A GROUP OF SCUBA DIVERS FOR WORK IN STORAGE RESERVOIRS. THIS ARTICLE DESCRIBES HOW TO DEVELOP A SUCCESSFUL PROGRAM AND SOME OF THE PROBLEMS RESOLVED IN PREVIOUS WORK.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N10

IRIS ACCESSION NUMBER: EW011723

PUBLICATION DATE: OCT 84

TITLE: POLYMERIZED IRON CHLORIDE: AN IMPROVED INORGANIC COAGULANT.

PERSONAL AUTHOR: LEPRINCE, ANTOINE; AND OTHERS

DESCRIPTOR: *COAGULANTS; *INORGANIC COAGULANTS; *IRON CHLORIDE; *PERFORMANCE EVALUATION; *POLYMERIZED IRON CHLORIDE; *RESEARCH; *WATER TREATMENT

DESCRIPTIVE NOTE: 93-97P.

ABSTRACT: DESCRIBED ARE EXPERIMENTS THAT WERE DONE TO DETERMINE THE EFFECTIVENESS OF PIC. POLYMERIZED IRON CHLORIDE IS MORE EFFICIENT THAN CONVENTIONAL FERRIC CHLORIDE FOR TURBIDITY REMOVAL, PARTICULARLY AT LOW WATER TEMPERATURES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N10

IRIS ACCESSION NUMBER: EW011724

PUBLICATION DATE: OCT 84

TITLE: CHEMICAL INDICATORS AND SURROGATE PARAMETERS IN WATER TREATMENT.

PERSONAL AUTHOR: MCCARTY, PERRY L.; AIETA, E. MARCO

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CALIFORNIA; *CHEMICAL INDICATORS; *CONTAMINANTS; *LABORATORY PROCEDURES; *MONITORING; *OPERATIONS (WATER); *PARAMETERS; *PERFORMANCE

EVALUATION; *SURROGATE PARAMETERS; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 98-106P.

ABSTRACT: SURROGATE PARAMETERS ALLOW RELATIVELY INEXPENSIVE MONITORING OF WATER TREATMENT PROCESSES. THIS ARTICLE DESCRIBES A STUDY CONDUCTED AT WATER FACTORY 21 IN ORANGE COUNTY, CALIFORNIA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION; V76 N10

IRIS ACCESSION NUMBER: EW011725

PUBLICATION DATE: OCT 84

TITLE: ACHIEVING BIOLOGICALLY STABLE DRINKING WATER.

PERSONAL AUTHOR: RITTMANN, BRUCE E.; SNOEYINK, VERNON L.

DESCRIPTOR: *AMMONIA; *BIOLOGICALLY STABLE WATER; *DRINKING WATER; *FILTRATION; *MANGANESE; *NITROGEN; *OPERATIONS (WATER); *ORGANIC SUBSTANCES; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 106-14P.

ABSTRACT: EUROPEAN PRACTICE SHOWS THAT DRINKING WATER IS MADE MORE STABLE BY TREATING IT IN BIOLOGICALLY ACTIVE PROCESSES. THIS ARTICLE DESCRIBES HOW THESE PROCESSES CAN BE USED WITHIN A WATER TREATMENT PLANT TO REMOVE ORGANIC AND INORGANIC SUBSTRATES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N10

IRIS ACCESSION NUMBER: EW011726

PUBLICATION DATE: NOV 84

TITLE: LATERAL SEALING SYSTEM HELPS CONTROL I/I.

DESCRIPTOR: *INFILTRATION; *INFLOW; *MAINTENANCE; *MARYLAND; *REHABILITATION; *SEALING; *SEWER SYSTEMS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 53-61P.

ABSTRACT: A NEW LATERAL SEALING PACKER CAN HELP ELIMINATE MUCH OF THE PROBLEM OF EXCESS INFILTRATION AND INFLOW. USE OF THE PACKER IN MARYLAND IS DESCRIBED.

AVAILABILITY: PUBLIC WORKS; V115 N11

IRIS ACCESSION NUMBER: EW011727

PUBLICATION DATE: NOV 84

TITLE: INSPECTION METHODS FOR WATER TANKS AND RESERVOIRS.

PERSONAL AUTHOR: COLLINS, THOMAS J.

DESCRIPTOR: *INSPECTION; *WATER RESERVOIRS; *WATER TANKS; *WATER SUPPLY; *WATER STORAGE; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 62-64P.

ABSTRACT: DESCRIBED ARE PROCEDURES FOR HOW TO INSPECT WATER STORAGE FACILITIES. AN INSPECTION CHECKLIST IS INCLUDED.

AVAILABILITY: PUBLIC WORKS; V115 N11

IRIS ACCESSION NUMBER: EW011728

PUBLICATION DATE: NOV 84

TITLE: FORMING A SEWER DISTRICT SAVES CITY FROM DEFAULT.

PERSONAL AUTHOR: ALESSI, CHARLES J.

DESCRIPTOR: *COSTS; *FINANCES; *FUNDING; *NEW YORK; *SEWER DISTRICTS; *SEWERS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 76-78, 92P.

ABSTRACT: DESCRIBED IS THE FORMATION OF A SEWER DISTRICT THAT SAVED LACKAWANNA, NEW YORK FROM DEFAULTING ON ITS NOTES.

AVAILABILITY: PUBLIC WORKS; V115 N11

IRIS ACCESSION NUMBER: EW011729

PUBLICATION DATE: NOV 84

TITLE: WATER UTILITY PERSONNEL USE MICROCOMPUTER FOR SMALL SYSTEM ANALYSIS.

PERSONAL AUTHOR: MCLAMARRAH, JANE A.; STAUSS, JOHN F.

DESCRIPTOR: *COMPUTER APPLICATIONS; *PIPES; *PIPE NETWORKS; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER NETWORK ANALYSIS

DESCRIPTIVE NOTE: 82-83P.

ABSTRACT: DESCRIBED IS HOW A MICROCOMPUTER PROGRAM WAS APPLIED FOR PIPE NETWORK ANALYSIS IN A SMALL SYSTEM.

AVAILABILITY: PUBLIC WORKS; V115 N11

IRIS ACCESSION NUMBER: EW011730

PUBLICATION DATE: 9/10 84

TITLE: POLLUTING SEWERS BROUGHT UNDER CONTROL.

PERSONAL AUTHOR: MORSE, ROBERT S.; ECKRICH, HELEN M.

DESCRIPTOR: *INDIANA; *MAINTENANCE; *MANAGEMENT; *MONITORING; *PERFORMANCE EVALUATION; *POLLUTION CONTROL; *SEWERS; *SEWER OVERFLOWS; *WASTEWATER COLLECTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 68-70P.

ABSTRACT: DESCRIBED ARE PROCEDURES USED IN MARION COUNTY, INDIANA TO REDUCE DRY WEATHER OVERFLOWS FROM COMBINED SEWERS. EFFORTS PRODUCED SUBSTANTIAL IMPROVEMENTS.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V47 N2

IRIS ACCESSION NUMBER: EW011731

PUBLICATION DATE: 30 APR

TITLE: HAZARDOUS MATERIALS INFORMATION HOTLINE USING SYSTEM 2000.

PERSONAL AUTHOR: BROWER, J. E.; FUCHEL, K.

DESCRIPTOR: *CHEMICALS; *COMPUTER HOTLINES; *HEALTH INFORMATION; *HAZARDOUS MATERIALS; *INFORMATION DISSEMINATION; *SAFETY INFORMATION; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 13P. PRICE CODE: PC A02/MF A01. ORDER NO.: DE84010791

ABSTRACT: THE CENTER FOR ASSESSMENT OF CHEMICAL AND PHYSICAL HAZARDS (CACPH) AT BROOKHAVEN NATIONAL LABORATORY (BNL) HAS DEVELOPED A COMPUTER HOTLINE SERVICE FOR THE DEPARTMENT OF ENERGY (DOE) AND ITS CONTRACTORS. THIS SERVICE PROVIDES ACCESS TO HEALTH AND SAFETY INFORMATION FOR OVER 800 CHEMICALS AND HAZARDOUS MATERIALS. THE DATA BASE USES SYSTEM 2000 ON A CDC 6600 AND PROVIDES INFORMATION ON THE CHEMICAL NAME AND ITS SYNONYMS, 17 CATEGORIES OF HEALTH AND SAFETY INFORMATION, COMPOSITION OF CHEMICAL MIXTURES, CATEGORIES OF CHEMICALS, USE AND HAZARDS, AND PHYSICAL, CHEMICAL AND TOXICITY ATTRIBUTES. IN ORDER TO MAKE THIS INFORMATION AVAILABLE TO PEOPLE UNFAMILIAR WITH SYSTEM 2000, A USER-FRIENDLY INTERFACE WAS DEVELOPED USING A FORTRAN PLEX PROGRAM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011732

PUBLICATION DATE: 83

TITLE: HAZARDOUS WASTE: THE SEARCH FOR SOLUTIONS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CONTAMINATION; *FILMS; *HAZARDOUS WASTES; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *PUBLIC PARTICIPATION; *PUBLIC HEALTH; *WASTE DISPOSAL; *TOXIC SUBSTANCES; *WATER RESOURCES

DESCRIPTIVE NOTE: 35 MINUTE FILM, $545. FILM RENTAL: $55.

ABSTRACT: THIS TELEVISION DOCUMENTARY FOCUSES ON FIVE STATES WHERE CITIZEN INVOLVEMENT HAS POSITIVELY AFFECTED PRIVATE INDUSTRY'S POTENTIALLY HAZARDOUS WASTE-DISPOSAL METHODS. BY EXPRESSING OPPOSING VIEWPOINTS, EXPERTS FROM GOVERNMENT, INDUSTRY, AND PROFESSIONAL ORGANIZATIONS LEND BALANCE. EFFORTS OF CITIZEN ACTION GROUPS ARE PRESENTED.

AVAILABILITY: DIRECT CINEMA, P. O. BOX 69589, LOS ANGELES, CA 90069

IRIS ACCESSION NUMBER: EW011733

PUBLICATION DATE: APR 83

TITLE: WATER POLICY IN TENNESSEE: ISSUES AND ALTERNATIVES.

PERSONAL AUTHOR: THACKSTON, E. L.; AND OTHERS

DESCRIPTOR: *CONSERVATION; *MANAGEMENT; *PLANNING; *POLICIES; *REGULATIONS; *STATE ROLE; *TENNESSEE; *WATER; *WATER CODE; *WATER SUPPLY; *WATER RESOURCES; *WATER REUSE

DESCRIPTIVE NOTE: 322P. PRICE CODE: PC A14/MF A01. ORDER NO.: PB84-227172

ABSTRACT: THE PURPOSE OF THIS STUDY WAS TO PRODUCE A MODEL CODE ON THE STATE, REGIONAL AND LOCAL PLANNING FOR, AND ALLOCATION OF WATER TO, TENNESSEE PUBLIC WATER SYSTEMS. THE METHOD OF CODE CONSTRUCTION BEGAN WITH A THOROUGH REVIEW AND EVALUATION OF FEDERAL AND STATE STATUTES, COMMON LAW AND REGULATIONS AFFECTING PUBLIC WATER SYSTEMS AND WATER RESOURCES PLANNING AND MANAGEMENT. THE FINAL CODE IS A BLEND OF EFFECTIVE WATER PLANNING AND MANAGEMENT PROVISIONS AND CONCEPTS FROM OTHER STATES. INCORPORATED INTO THE CODE ARE STATE AND REGIONAL PLANNING PROVISIONS, AND ENFORCEMENT OF WATER SUPPLY DEVELOPMENT AND EXPANSION BASED ON THE PLANS. WATER CONSERVATION AND REUSE ARE REQUIRED THROUGHOUT THE CODE. ALSO WATER SHORTAGE AND EMERGENCY MANAGEMENT AUTHORITY IS CREATED AND DELEGATED TO APPROPRIATE BODIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011734

PUBLICATION DATE: AUG 84

TITLE: HYDRAULIC CHARACTERISTICS OF ACTIVATED SLUDGE SECONDARY CLARIFIERS.

PERSONAL AUTHOR: CROSBY, R. M.

DESCRIPTOR: *ACTIVATED SLUDGE; *CLARIFIERS; *HYDRAULICS;

*PERFORMANCE EVALUATION; *RESEARCH; *SECONDARY CLARIFIERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 292P. PRICE CODE: PC A13/MF A01. ORDER NO.: PB84-229665

ABSTRACT: THIS STUDY DOCUMENETED THE HYDRAULIC CHARACTRISTICS OF TYPICAL ACTIVATED SLUDGE CLARIFIERS. MODIFICATIONS TO THE CLARIFIER STRUCTURES WERE MADE IN AN ATTEMPT TO IMPROVE CLARIFIER HYDRAULIC CHARACTERISTICS AND PERFORMANCE. INNOVATIVE FLUOROMETRIC DYE TRACER STUDIES WERE USED TO OBSERVE THE HYDRAULIC FLOW PATTERNS WITHIN SEVERAL DIFFERENT TYPES OF CLARIFIERS. FACTORS THAT ARE INTERNAL AND EXTERNAL TO THE CLARIFIER WERE FOUND TO AFFECT THE HYDRAULIC CHARACTERISTICS AND PERFORMANCE OF THE CLARIFIERS INVESTIGATED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011735

PUBLICATION DATE: JUN 84

TITLE: NATIONAL STATISTICAL ASSESSMENT OF RURAL WATER CONDITIONS. VOLUME 1.

PERSONAL AUTHOR: FRANCIS, J. D.; AND OTHERS

DESCRIPTOR: *ASSESSMENT; *COSTS; *DOMESTIC WATER; *HEALTH EFFECTS; *RESEARCH; *RURAL AREAS; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 424P. PRICE CODE: PC A18/MF A01. ORDER NO.: PB84-222330

ABSTRACT: THIS STUDY CONSIDERED FIVE DOMINANT DIMENSIONS OF THE STATUS OF DOMESTIC WATER: QUALITY, QUANTITY, AVAILABILITY, COST AND AFFORDABILITY. RURAL RESIDENTS WERE ASKED ABOUT HEALTH EFFECTS BUT THE RESULTS WERE MODEST IN THAT VERY FEW RURAL RESIDENTS REPORTED ADVERSE HEALTH CONDITIONS WHICH THEY ASSOCIATED WITH THE WATER SUPPLY. WITH ENACTMENT OF THE SAFE DRINKING WATER ACT OF 1974, CONGRESS SET IN MOTION TWO MAJOR EFFORTS TO DEVELOP SYSTEMATIC, CURRENT DATA ON RURAL WATER SUPPLIES ACROSS THE NATION. FIRST, IN RESPONSE TO GROWING CONCERN WITH THE QUALITY OF DRINKING WATER AND ITS EFFECTS ON HUMAN HEALTH, THE SAFE DRINKING WATER ACT PROVIDED FOR A UNIFORM, NATIONAL SET OF WATER QUALITY STANDARDS AND EXTENDED THE MONITORING AND REGULATORY RESPONSIBILITY OF THE US GOVERNMENT OVER SMALLER WATER SUPPLIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011736

PUBLICATION DATE: JUN 84

TITLE: NATIONAL STATISTICAL ASSESSMENT OF RURAL WATER CONDITIONS. VOLUME 2.

DESCRIPTOR: *ASSESSMENT; *COSTS; *DOMESTIC WATER; *HEALTH EFFECTS; *RESEARCH; *RURAL AREAS; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 444P. PRICE CODE: PC A19/MF A01. ORDER NO.: PB84-222348

ABSTRACT: THIS STUDY CONSIDERED FIVE DOMINANT DIMENSIONS OF THE STATUS OF DOMESTIC WATER: QUALITY, QUANTITY, AVAILABILITY, COST AND AFFORDABILITY. RURAL RESIDENTS WERE ASKED ABOUT HEALTH EFFECTS BUT THE RESULTS WERE MODEST IN THAT VERY FEW RURAL RESIDENTS REPORTED ADVERSE HEALTH CONDITIONS WHICH THEY ASSOCIATED WITH THE WATER SUPPLY. WITH ENACTMENT OF THE SAFE DRINKING WATER ACT OF 1974, CONGRESS SET IN MOTION TWO MAJOR EFFORTS TO DEVELOP SYSTEMATIC, CURRENT DATA ON RURAL WATER SUPPLIES ACROSS THE NATION. THE ACT MANDATED A ONE-TIME NATIONAL STATISTICAL ASSESSMENT OF THE CURRENT STATUS OF RURAL DOMESTIC WATER CHARACTERISTICS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011737

PUBLICATION DATE: AUG 84

TITLE: TOXICITY TREATABILITY OF IRON AND STEEL PLANT WASTEWATERS: A RESOURCE DOCUMENT.

PERSONAL AUTHOR: CARPENTER, B. H.; AND OTHERS

DESCRIPTOR: *INDUSTRY; *INDUSTRIAL WASTES; *IRON INDUSTRY; *OPERATIONS (WASTEWATER); *RESEARCH; *STEEL INDUSTRY; *TOXIC SUBSTANCES; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 115P. PRICE CODE: PC A06/MF A01. ORDER NO.: PB84-232495

ABSTRACT: THE REPORT GIVES RESULTS OF AN ASSESSMENT OF THE TOXICITY TREATABILITY OF WASTEWATERS FROM EIGHT STEELMAKING SUBCATEGORIES, ALL CONSIDERED ASSESSABLE UNDER THE SOMEWHAT LOW PRODUCTION LEVELS OF THE STUDY PERIOD. RESULTS SHOW THE RELATIVE TOXICITY AND VARIABILITY OF WASTEWATER FROM THE DIFFERENT MANUFACTURING SUBCATEGORIES AND THE REDUCTIONS IN TOXICITY. RELATIONSHIPS BETWEEN POLLUTANT CONTENT AND TOXICITY ARE EXAMINED WITH COGNIZANCE OF THE POSSIBLE SITE UNIQUENESS OF THE DATA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011738

PUBLICATION DATE: JUN 84

TITLE: NATIONAL STATISTICAL ASSESSMENT OF RURAL WATER CONDITIONS. VOLUME 4.

DESCRIPTOR: *ASSESSMENT; *COSTS; *DOMESTIC WATER; *HEALTH EFFECTS; *RESEARCH; *RURAL AREAS; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 316P. PRICE CODE: PC A14/MF A01. ORDER NO.: PB84-22363

ABSTRACT: THIS STUDY CONSIDERED FIVE DOMINANT DIMENSIONS OF THE STATUS OF DOMESTIC WATER: QUALITY, QUANTITY, AVAILABILITY, COST AND AFFORDABILITY. RURAL RESIDENTS WERE ASKED ABOUT HEALTH EFFECTS BUT THE RESULTS WERE MODEST IN THAT VERY FEW RURAL RESIDENTS REPORTED ADVERSE HEALTH CONDITIONS WHICH THEY ASSOCIATED WITH THE WATER SUPPLY. WITH ENACTMENT OF THE SAFE DRINKING WATER ACT OF 1974, CONGRESS SET IN MOTION TWO MAJOR EFFORTS TO DEVELOP SYSTEMATIC, CURRENT DATA ON RURAL WATER SUPPLIES ACROSS THE NATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011739

PUBLICATION DATE: 84

TITLE: GROUNDWATER TRANSPORT: HANDBOOK OF MATHEMATICAL MODELS.

PERSONAL AUTHOR: JAVANDEL, I.; AND OTHERS

DESCRIPTOR: *GROUNDWATER; *HANDBOOKS; *FLUID FLOW; *FLOW MEASUREMENT; *MATHEMATICAL MODELS; *POLLUTION; *SOLUTE TRANSPORT; *WATER QUALITY; *WATER POLLUTION

DESCRIPTIVE NOTE: 231P.

ABSTRACT: THIS HANDBOOK INTRODUCES THE READER TO VARIOUS MATHEMATICAL METHODS FOR ESTIMATING SOLUTE TRANSPORT IN GROUND-WATER SYSTEMS. IT CONTAINS TABLES, FIGURES, AND SIMPLE COMPUTER PROGRAMS THAT CAN BE DIRECTLY USED FOR FIELD STUDIES. THREE LEVELS OF MATHEMATICAL METHODS ARE COVERED: (1) ANALYTICAL, (2) SEMIANALYTICAL, AND (3) NUMERICAL. THE FIRST TWO LEVELS REQUIRE RELATIVELY SMALL AMOUNTS OF DATA. AT THE THIRD LEVEL, NUMERICAL APPROACHES ARE DISCUSSED AND A NUMBER OF CURRENTLY AVAILABLE NUMERICAL MODELS ARE LISTED, INDICATING CODE CAPABILITIES AND CODE DEVELOPERS TO BE CONTACTED FOR FURTHER INFORMATION. AN EXAMPLE OF THE USE OF ONE SUCH MODEL IS PRESENTED IN APPENDIX J. A DISCUSSION ON METHOD SELECTION AND DATA REQUIREMENTS IS ALSO INCLUDED.

AVAILABILITY: PUBLISHED IN AMERICAN GEOPHYSICAL UNION, WATER RESOURCES MONOGRAPH 10

IRIS ACCESSION NUMBER: EW011740

PUBLICATION DATE: AUG 84

TITLE: WASTE HEAT UTILIZATION. NOVEMBER, 1981 - JULY, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BUILDINGS; BIBLIOGRAPHIES; *ENERGY; *ENERGY CONSERVATION; *HEAT; *INDUSTRY; *POWER PLANTS; *POLICIES; *RECOVERY; *RESOURCES RECOVERY; *WASTE HEAT

DESCRIPTIVE NOTE: 168P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-872647

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE RECOVERY AND UTILIZATION OF WASTE HEAT IN POWER PLANTS, INDUSTRIAL PROCESSES, AND COMMERCIAL BUILDINGS. TOPICS INCLUDE THE USE OF INDUSTRIAL PROCESS HEAT IN DISTRICT HEATING STUDIES, GREENHOUSE HEATING WITH POWER PLANT WASTE HEAT, AND MATERIALS CONSIDERATIONS FOR HEAT EXCHANGE EQUIPMENT. THE UTILIZATION OF HEAT PUMPS IN THE RECOVERY OF LOW-GRADE INDUSTRIAL HEAT IS DISCUSSED. CITATIONS PERTAINING SPECIFICALLY TO GOVERNMENT POLICIES AND TOTAL ENERGY SYSTEMS IN COMMERCIAL BUILDINGS ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 183 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011741

PUBLICATION DATE: AUG 84

TITLE: WASTE TREATMENT BY REVERSE OSMOSIS AND MEMBRANE PROCESSING. 1978-JULY, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *INDUSTRIAL WASTES; *INDUSTRY; *MEMBRANE PROCESSING; *RESEARCH; *REVERSE OSMOSIS; *SEWAGE; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 186P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-872662

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF REVERSE OSMOSIS AND MEMBRANE PROCESSING IN SEWAGE AND INDUSTRIAL WASTE TREATMENT. TOPICS INCLUDE USES IN COAL CONVERSION PLANTS, MINING AND MUNITIONS INDUSTRIES, AND MUNICIPAL SEWAGE TREATMENT PLANTS. CITATIONS PERTAINING SPECIFICALLY TO THE DESALTING OF GROUND WATER, SURFACE WATERS, AND SEA WATER ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 183 CITATIONS, 28 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011742

PUBLICATION DATE: MAY 84

TITLE: REVIEW OF EXISTING ENVIRONMENTAL AND NATURAL RESOURCE DATA BASES.

PERSONAL AUTHOR: OLSON, R. J.

DESCRIPTOR: *COMPUTERIZED DATA; *DATABASES; *DIRECTORIES; *ENVIRONMENT; *INFORMATION SOURCES; *NATURAL RESOURCES; *REFERENCE MATERIALS

DESCRIPTIVE NOTE: 75P. PRICE CODE: PC A04/MF A01. ORDER NO.: DE84012039

ABSTRACT: ENVIRONMENTAL AND NATURAL RESOURCE (E AND NR) DATA ARE REVIEWED IN TERMS OF EXISTING DATA BASES, FUNDING STATUS OF DATA BASES, AND LONG-TERM DATA BASE MAINTENANCE. COMPUTERIZED E AND NR DATA FILES AND INVENTORIES OF DATA FILES ARE DESCRIBED. TWENTY-FOUR FEDERAL AGENCY CLEARINGHOUSE, REFERRAL, OR DATA CENTERS WERE IDENTIFIED THAT MAINTAIN INVENTORIES OF E AND NR MACHINE-READABLE DATA FILES. ONE OF THE MORE EXTENSIVE SOURCES THAT CAN BE SEARCHED TO HELP LOCATE AVAILABLE COMPUTERIZED DATA IS THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONS NATIONAL ENVIRONMENTAL DATA REFERRAL SERVICE (NEDRES). THE NEDRES CONTAINS DESCRIPTIONS OF OVER 13,500 DATA FILES. OVER 130 NATIONAL, COMPUTERIZED E AND NR DATA BASES ARE IDENTIFIED BY TITLE, GEOGRAPHIC SCALE, TIME PERIOD, AGENCY, AND CONTACT PERSON. FIVE LARGE INTEGRATED DATA BASE SYSTEMS CONTAINING E AND NR DATA ARE DESCRIBED. THE SYSTEMS INCLUDE DATAGRAF, GEMS, GEOECOLOGY, SEEDIS, AND UPGRADE. TWO SYSTEMS, GEOECOLOGY AND UPGRADE, ARE CURRENTLY INACTIVE DUE TO FUNDING CUTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011744

PUBLICATION DATE: JUL 84

TITLE: EPA METHOD STUDY 21, METHOD 611 - HALOETHERS. PROJECT SUMMARY.

PERSONAL AUTHOR: MCMILLIN, CARL R.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EPA METHOD STUDIES; *HALOETHERS; *LABORATORY PROCEDURES; *METHOD STUDIES; *USEPA; *WATER QUALITY; *WASTEWATER

DESCRIPTIVE NOTE: 3P. FOR COMPLETE REPORT: PB84-205939; PRICE: $13.00

ABSTRACT: THIS REPORT DESCRIBES THE INTERLABORATORY STUDY OF AN ANALYTICAL METHOD WHICH DETECTS HALOETHERS IN WATER. RESULTS OF THE STUDY ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011745

PUBLICATION DATE: JUN 84

TITLE: EPA METHOD STUDY 26, METHOD 613: 2, 3, 7, 8-TETRACHLORODIBENZO-P-DIOXIN. PROJECT SUMMARY.

PERSONAL AUTHOR: HILEMAN, FRED D.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DIOXIN; *EPA METHOD STUDIES; *LABORATORY PROCEDURES; *METHOD STUDIES; *WATER ANALYSIS; *WATER

DESCRIPTIVE NOTE: 3P. FOR COMPLETE REPORT: PB 84-188879; PRICE: $11.50.

ABSTRACT: THE EXPERIMENTAL DESIGN AND RESULTS OF AN INTERLABORATORY STUDY FOR AN ANALYTICAL METHOD TO DETECT 2, 3, 7, 8-TETRACHLORODIBENZO-P-DIOXIN IN WATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011746

PUBLICATION DATE: 84

TITLE: PROCEDURES FOR WATER AND WASTEWATER ANALYSIS: WITH COLORIMETRIC CALIBRATIONS FOR POPULAR BAUSCH AND LOMB SPECTROPHOTOMETERS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICALS; EQUIPMENT; *LABORATORY PROCEDURES; *MANUALS; SAMPLING; WATER; *WATER ANALYSES; WASTEWATER; *WASTEWATER ANALYSIS

DESCRIPTIVE NOTE: 149P.

ABSTRACT: THIS PUBLICATION DESCRIBES MANY ANALYTICAL TECHNIQUES FOR ANALYZING WATER AND WASTEWATER USING HACH MATERIALS. THE MATERIAL PROVIDES INFORMATION REGARDING PROCEDURES FOR EACH TEST, SAMPLE HANDLING AND REAGENTS AND APPARATUS NEEDED.

AVAILABILITY: HACH COMPANY, P. O. BOX 389, LOVELAND, CO 80539

IRIS ACCESSION NUMBER: EW011747

PUBLICATION DATE: AUG 84

TITLE: REPORT OF THE NTP AD HOC PANEL ON CHEMICAL CARCINOGENESIS TESTING AND EVALUATION.

DESCRIPTOR: *CARCINOGENS; *CANCER; *CHEMICALS; *EVALUATION; *HEALTH; *NATIONAL TOXICOLOGY PROGRAM; *PROGRAM EVALUATIONS; *RESEARCH REVIEWS; *RESEARCH NEEDS; *SAFETY; *TESTING; *TOXICOLOGY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 286P. AVAILABLE FREE.

ABSTRACT: A PANEL ON CHEMICAL CARCINOGENESIS TESTING AND EVALUATION WAS CHARGED BY THE NATIONAL TOXICOLOGY PROGRAMS (NTP) BOARD OF SCIENTIFIC COUNSELORS TO EXAMINE THE CURRENT STATE OF THE SCIENCE. THIS REPORT IS THE RESULT OF THE PANELS REVIEW OF CURRENT TESTS, A REVIEW OF THE LITERATURE, AND WRITTEN COMMENTS RECEIVED FROM INTERESTED PEOPLE. CHAPTERS ARE INCLUDED ON SHORT TERM TESTS, SUBCHRONIC

STUDIES, AND CHRONIC STUDIES. EACH CHAPTER INCLUDES ANALYTICAL COMMENTS AND RECOMMENDATIONS.

AVAILABILITY: NATIONAL TOXICOLOGY PROGRAM PUBLIC INFORMATION OFFICE, MD B2-04, BOX 12233, RESEARCH TRINAGLE PARK, NC 27709

IRIS ACCESSION NUMBER: EW011748

PUBLICATION DATE: APR 83

TITLE: STATUS AND TRENDS OF WETLANDS AND DEEPWATER HABITATS IN THE CONTERMINOUS UNITED STATES, 1950'S TO 1970'S.

PERSONAL AUTHOR: FRAYER, W. E.; AND OTHERS

DESCRIPTOR: *SURVEYS; *TRENDS; *WETLANDS

DESCRIPTIVE NOTE: 33P. PRICE: $5.00

ABSTRACT: THIS STUDY DOCUMENTS NATURAL AND MAN-INDUCED WETLAND AND DEEPWATER HABITAT GAINS AND LOSSES IN THE 48 CONTERMINOUS UNITED STATES BETWEEN THE MID-1950'S AND MID-1970'S. WHILE IT PROVIDES ESTIMATES OF THE ABUNDANCE OF THE NATION'S WETLANDS AND DEEPWATER HABITATS, IT DOES NOT PROVIDE INFORMATION ON THEIR QUALITY.

AVAILABILITY: DEPARTMENT OF FOREST AND WOOD SCIENCES, COLORADO STATE UNIVERSITY, FT. COLLINS, CO 80523

IRIS ACCESSION NUMBER: EW011749

PUBLICATION DATE: DEC 84

TITLE: EXTERNAL COSTS OF COASTAL BEACH POLLUTION: AN HEDONIC APPROACH.

PERSONAL AUTHOR: WILMAN, ELIZABETH A.

DESCRIPTOR: *BEACH POLLUTION; *CASE STUDIES; COASTAL AREAS; *COASTAL ZONE MANAGEMENT; *ECONOMICS; *ENVIRONMENTAL IMPACTS; INDUSTRY; *MANAGEMENT; *OIL INDUSTRY; *NEW ENGLAND; OCEANS; *POLLUTION CONTROL; RECREATION; *RISK ASSESSMENT; *VALUES

DESCRIPTIVE NOTE: 206P. PRICE: $15.00

ABSTRACT: THIS STUDY IS INTENDED TO BE A STEP TOWARD IMPROVING THE INFORMATION BASE FOR MANAGEMENT DECISIONS. THE STUDY FOCUSES ON THE MEASUREMENT OF THE EXTERNAL BEACH POLLUTION COST ASSOCIATED WITH ENERGY DEVELOPMENT IN THE FORM OF OFFSHORE OIL PRODUCTION.

AVAILABILITY: RESOURCES FOR THE FUTURE, CUSTOMER SERVICES, P. O. BOX 4852, HAMPDEN STATION, BALTIMORE, MD 21211

IRIS ACCESSION NUMBER: EW011750

PUBLICATION DATE: 84

TITLE: BOULDER COUNTY STORM DRAINAGE CRITERIA MANUAL.

PERSONAL AUTHOR: RUZZO, WILLIAM P.

DESCRIPTOR: *COLORADO; *DRAINAGE; *DESIGN; *MANUALS; *PLANNING; *SEWERS; *STORM SEWERS; *STORM RUNOFF; *URBAN AREAS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 341P.

ABSTRACT: THIS MANUAL WAS DESIGNED TO BE A COMPLETE DRAINAGE MANUAL FOR USE BY ENGINEERS FOR PREPARING, REVIEWING, AND EVALUATING DRAINAGE DESIGNS AND CRITERIA IN THE BOULDER COUNTY AREA OF COLORADO. SECTIONS ARE INCLUDED ON: (1) GENERAL PROVISIONS, (2) DRAINAGE PLANNING SUBMITTAL REQUIREMENTS, (3) DRAINAGE POLICY, (4) DRAINAGE FLOW, (5) RAINFALL, (6) STORM RUNOFF, (7) HYDRAULIC STRUCTURES, (8) DETENTION, (9) OPEN CHANNELS, (10) STORM SEWER SYSTEM, (11) STREETS, (12) CULVERTS AND BRIDGES, AND (13) EROSION AND SEDIMENTATION CONTROL.

AVAILABILITY: PUBLIC WORKS DEPARTMENT, BOULDER COUNTY, P. O. BOX 471, BOULDER, CO 80306

IRIS ACCESSION NUMBER: EW011752

PUBLICATION DATE: NOV 84

TITLE: COMPUTERIZED SYSTEM EXTENDS CONTROL.

DESCRIPTOR: *COMPUTER APPLICATIONS; *CONTROL SYSTEMS; *MANAGEMENT; *MONITORING; *OPERATIONS (WATER); *PUMPS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 8P.

ABSTRACT: DESCRIBED ARE ASPECTS OF THE COMPUTERIZED CONTROL SYSTEM USED BY THE CITY OF PUEBLO, COLORADO FOR ITS MUNICIPAL WATER DISTRICT.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011753

PUBLICATION DATE: NOV 84

TITLE: VACUUM WASTEWATER COLLECTION SYSTEM MAKES THE GRADE IN CHARLOTTE, TENNESSEE.

DESCRIPTOR: *AIRVAC; *ALTERNATIVE TECHNOLOGY; *PUMPS; *VACUUM SYSTEMS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 12P.

ABSTRACT: DESCRIBED IS THE AIRVAC VACUUM WASTEWATER COLLECTION SYSTEM USED IN CHARLOTTE, TENNESSEE.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011754

PUBLICATION DATE: NOV 84

TITLE: MECHANICAL AERATION SOLVES IRON PROBLEM IN WATER SUPPLY.

PERSONAL AUTHOR: HOOPER, JOHN D.

DESCRIPTOR: *AERATION; *DRINKING WATER; *ILLINOIS; *IRON; *IRON REMOVAL; *MECHANICAL AERATION; *OPERATIONS (WATER); *OXIDATION; *WATER SUPPLY; *WATER TREATMENT; *WELLS

DESCRIPTIVE NOTE: 14P.

ABSTRACT: DESCRIBED IS A MECHANICAL AERATION PROCESS FOR REMOVING IRON FROM A WATER SUPPLY FROM WELLS IN ILLINOIS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011755

PUBLICATION DATE: NOV 84

TITLE: ARE YOU A NATURAL MANAGER?

DESCRIPTOR: *ATTITUDES; *MANAGERS; *MANAGEMENT; *MEASUREMENT INSTRUMENTS; *MEYERS-BRIGGS INDICATOR; *QUESTIONNAIRES; *PERSONNEL; *PERSONAL CHARACTERISTICS

DESCRIPTIVE NOTE: 20P.

ABSTRACT: THIS ARTICLE PRESENTS A QUESTIONNAIRE WHICH IS A VARIATION OF THE MEYERS-BRIGGS INDICATOR. AN EXPLANATION IS GIVEN FOR INTERPRETING THE RESPONSES AND DEVELOPING A PROFILE. CHARACTERISTICS OF EFFECTIVE MANAGEMENT ARE PRESENTED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011756

PUBLICATION DATE: NOV 84

TITLE: ENLISTING THE PRODUCING WORK FORCE.

PERSONAL AUTHOR: SUTTON, GEORGE

DESCRIPTOR: *EMPLOYEE MOTIVATION; *FLORIDA; *MANAGEMENT; *PARTICIPATIVE MANAGEMENT; *PRODUCTIVITY; *PROGRAM DESCRIPTIONS; *PUBLIC WORKS

DESCRIPTIVE NOTE: 22-23P.

ABSTRACT: SHORTCOMINGS OF AN EARLIER ADMINISTRATIVE STRUCTURE BROUGHT ABOUT ORGANIZATIONAL CHANGES INVOLVING PUBLIC WORKS EMPLOYEES OF ST. PETERSBURG, FLORIDA, IN A PARTICIPATIVE MANAGEMENT PROGRAM THAT WORKS. SELECTED ACTIVITIES AND PROCESSES ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011757

PUBLICATION DATE: NOV 84

TITLE: AFTERSTORM CLEANUP NEEDS CARE AND COMMON SENSE.

DESCRIPTOR: *CLEANUP; *FLOODS; *INSPECTION; INSURANCE; *RECOMMENDATIONS; SAFETY; SALVAGE; SURFACE RUNOFF; WATER SUPPLY; WATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 23-25P.

ABSTRACT: WATER DISTRIBUTION AND WASTEWATER COLLECTION PERSONNEL CAN GET INVOLVED IN FLOOD-OR STORM-RELATED INSPECTION AND CLEANUP. THIS ARTICLE PRESENTS A CHECKLIST THAT CAN BE USED TO HELP THEM TO AVOID DANGER AND CONTAMINATION.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011758

PUBLICATION DATE: NOV 84

TITLE: NO MORE ALKALINITY BURNOUT.

PERSONAL AUTHOR: CASE, RICHARD L.

DESCRIPTOR: *AERATION TANKS; *ALKALINITY; *DISSOLVED OXYGEN; *EFFLUENTS; *MANAGEMENT; *NITROGEN; *OPERATIONS (WASTEWATER); *PH; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 26-27P.

ABSTRACT: BENCH EXPERIMENTS AND FULL-SCALE TESTING AT A NEW ENGLAND WASTEWATER TREATMENT PLANT REVEALED THAT REDUCTION AND CONTROL OF DISSOLVED OXYGEN LEVELS COULD PREVENT ALKALINITY BURNOUT IN THE NITRIFICATION PROCESS AND THE SUBSEQUENT DISCHARGE OF LOW PH EFFLUENT.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011759

PUBLICATION DATE: NOV 84

TITLE: CALCULATOR SMOOTHS COLOR MEASUREMENT PATH.

PERSONAL AUTHOR: JENKINS, STEPHEN R.; SANDERS, MARIA

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CALCULATIONS; *CALCULATORS; *CALCULATOR PROGRAMS; *COLOR; *MONITORING;

*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 28-30P.

ABSTRACT: METHODS TO PUT A NUMBER ON THE COLOR OF WASTEWATER SAMPLES WERE TEDIOUS - UNTIL THIS PROGRAM FOR A HAND-HELD CALCULATOR WAS WORKED OUT. THIS PROVIDES TREATMENT PLANT OPERATORS WITH AN INEXPENSIVE WAY TO SOLVE AN ANALYTICAL PROBLEM.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011760

PUBLICATION DATE: NOV 84

TITLE: MICRO DRAWINGS PRODUCE MACRO RESPONSES.

PERSONAL AUTHOR: TIPPIN, DAVID L.

DESCRIPTOR: *COMMUNICATIONS; *EMERGENCY RESPONSE; FLORIDA; ENGINEERING DRAWINGS; *MAINTENANCE; *MICROFICHE; *SERVICE CALLS; *WATER UTILITIES

DESCRIPTIVE NOTE: 31-32P.

ABSTRACT: TAMPA'S WATER DEPARTMENT CAN NOW PROVIDE A SPEEDY RESPONSE TO EMERGENCIES. A MICROFICHE SYSTEM HAS BEEN COUPLED TO ITS COMMUNICATIONS NETWORK SO THAT ENGINEERING DRAWINGS ARE AVAILABLE ON CALL TO MAINTENANCE CREWS IN THE FIELD.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N12

IRIS ACCESSION NUMBER: EW011761

PUBLICATION DATE: AUG 81

TITLE: WATERSHED HANDBOOK. A MANAGEMENT TECHNIQUE FOR CHOOSING AMONG POINT AND NONPOINT CONTROL STRATEGIES.

PERSONAL AUTHOR: MONTEITH, T. J.; AND OTHERS

DESCRIPTOR: *DECISION MAKING; *HANDBOOKS; *MANAGEMENT; *NONPOINT SOURCES; *POINT SOURCES; *WATERSHEDS; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 112P. PRICE CODE: PC A06/MF A01. ORDER NO.: PB84-231240

ABSTRACT: WATERSHED IS A SIMPLE, "DESK TOP" ACCOUNTING SYSTEM DESIGNED TO HELP WATER QUALITY PLANNERS ASSESS ALTERNATIVE MANAGEMENT STRATEGIES FOR CONTROLLING POINT AND NONPOINT SOURCE POLLUTION INPUTS FROM LARGE AREAS (100 SQUARE MILES OR GREATER) TO A RECEIVING WATER. ITS GOAL IS TO FIND THE BEST MIX OF POINT AND NONPOINT SOURCE MANAGEMENT TECHNIQUES TO ACHIEVE A GIVEN LOAD ALLOCATION FOR A RECEIVING WATERBODY. THROUGH A COST-EFFECTIVENESS RANKING SCHEME, WATERSHED IDENTIFIES THE ORDER IN WHICH REMEDIAL MEASURES COULD BE IMPLEMENTED TO ACHIEVE THE GREATEST ANNUAL WATER QUALITY IMPROVEMENTS AT THE LEAST COST. THIS HANDBOOK PRESENTS THE MECHANICS AND BACKGROUND DATA FOR USING THE WATERSHED SYSTEM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011762

PUBLICATION DATE: SEP 84

TITLE: ALGAE: CONTROL AND GROWTH IN LAKES AND STREAMS. 1977-SEPTEMBER, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA)

DESCRIPTOR: *ALGAE; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOLOGICAL CONTROL; *CHEMICAL CONTROL; *LAKES; *HERBICIDES; RESEARCH REPORTS; *RESEARCH; *STREAMS; *WATER QUALITY

DESCRIPTIVE NOTE: 161P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-874890

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE GROWTH AND CONTROL OF ALGAL GROWTH IN LAKES, STREAMS, RIVERS, AND MANMADE LAGOONS. BIOLOGICAL AND CHEMICAL CONTROL OF ALGAL BLOOMS ARE CONSIDERED AND THEIR ADVANTAGES AND DISADVANTAGES ARE DISCUSSED. BIOLOGICAL CONTROL METHODS, INCLUDING REGULATION OF NUTRIENTS, O2 AND N2, PREDATION BY FISH, PLANKTON, SNAILS AND THE USE OF VIRUSES, BACTERIA, AND FUNGI ARE CONSIDERED. THE USE OF HERBICIDES IS ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 140 CITATIONS, 17 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011763

PUBLICATION DATE: SEP 84

TITLE: FOOD PROCESSING WASTE TREATMENT. 1976-SEPTEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *EQUIPMENT; *FOOD INDUSTRY; *FOOD PROCESSING; *INDUSTRY; *METHODS; *OPERATIONS; *WASTE TREATMENT

DESCRIPTIVE NOTE: 133P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-874999

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING METHODS AND EQUIPMENT UTILIZED IN THE TREATMENT OF FOOD PROCESSING WASTES. SPECIFIC FOOD INDUSTRIES INCLUDE MEATPACKING, FRUIT AND VEGETABLE, SEAFOOD, AND POULTRY. PROCESSES AND EQUIPMENT USED IN THE DAIRY INDUSTRY ARE ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 143 CITATIONS, 14 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011764

PUBLICATION DATE: SEP 84

TITLE: ATOMIC ABSORPTION ANALYSIS. 1970-SEPTEMPER, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; *ATOMIC ABSORPTION ANALYSIS; BIBLIOGRAPHIES; *AIR POLLUTION CONTROL; *LABORATORY PROCEDURES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 168P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-875129

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ANALYTICAL TECHNIQUES AND APPLICATIONS OF ATOMIC ABSORPTION SPECTROSCOPY, INCLUDING FLAME AND FURNACE AAS. DESIGN AND DEVELOPMENT OF AAS TECHNOLOGY FOR TRACE ELEMENTS, WATER AND WASTES, EFFLUENTS, AND BIOLOGICAL MATERIALS ANALYSES ARE DISCUSSED. APPLICATIONS IN AIR AND WATER POLLUTION DETECTION, IMPURITY DETERMINATION IN METALS, AND METAL SPECIATION MEASUREMENTS ARE PRESENTED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 186 CITATIONS, 16 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011765

PUBLICATION DATE: SEP 84

TITLE: BIODEGRADATION OF PULPING EFFLUENTS. 1972-SEPTEMBER, 1984 (CITATIONS FROM THE INSTITUTE OF PAPER CHEMISTRY DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIODEGRADATION; BIBLIOGRAPHIES; *CHLORINATION; *EFFLUENTS; *ENVIRONMENTAL EFFECTS; *INDUSTRIAL WASTES; *PULP INDUSTRY; *WASTE TREATMENT; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 163P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-875301

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING PROBLEMS, RESOLUTIONS, AND EVALUATIONS OF TREATMENT OF BIODEGRADABLE EFFLUENTS FROM PULP MILLS. MUTAGENIC CHARACTERISTICS OF WASTE FROM CHLORINATION OF MOST PULPS ARE DISCUSSED RELATIVE TO THE RISKS INVOLVED TO WATER PLANT AND ANIMAL LIFE. LABORATORY MEASUREMENTS DETERMINING TOXICITY OF EFFLUENTS AND VARIOUS INDUSTRIAL BIODEGRADATION PROCESSES ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 170 CITATIONS, 66 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011766

PUBLICATION DATE: JUN 84

TITLE: LANDFILL LINERS AND COVERS: PROPERITES AND APPLICATION TO ARMY LANDFILLS.

PERSONAL AUTHOR: SHAFER, R.; AND OTHERS

DESCRIPTOR: COVERS; CHEMICALS; LEACHATES; *LANDFILLS; *LINERS; MONITORING; *POLLUTION CONTROL; *REGULATIONS; *RECOMMENDATIONS; *U. S. ARMY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 66P. PRICE CODE: PC A04/MF A01. ORDER NO.: AD-A144 003/1

ABSTRACT: INFORMATION IS PROVIDED TO HELP ARMY INSTALLATIONS CHOOSE LANDFILL LINER AND COVER SYSTEMS RESISTANT TO CHEMICAL ATTACK FROM THE LEACHATE GENERATED AND COMPATIBLE WITH THE ENVIRONMENT. A LINEAR AND COVER SYSTEM MUST BE DESIGNED WITH CONSIDERATION OF POLLUTION REGULATIONS, ENVIRONMENT, CLIMATE, AND TYPE OF LEACHATE PRODUCED. FEDERAL REGULATIONS REQUIRING THE LANDFILL TO COMPLY WITH THE MOST STRINGENT LOCAL AIR AND WATER QUALITY STANDARDS ARE SUMMARIZED. THE MATERIAL USED AS A LINER OR COVER MUST ALSO BE CHOSEN BASED ON THE ENVIRONMENT, CLIMATE, AND CHEMICAL COMPATIBILITY WITH THE LEACHATE. BOTH NATURAL AND SYNTHETIC MATERIALS ARE AVAILABLE AND EACH TYPE MUST BE EXPECTED TO REACT DIFFERENTLY WITH THE LEACHATE PRODUCED AT A GIVEN SITE. A LINER AND COVER SYSTEM MAY INCLUDE PIPING, ADDITIONAL GAS CONTROLS, AND ADJACENT LAGOONS FOR COLLECTION, TREATMENT, OR RECYCLING. THE SYSTEM SHOULD HAVE MONITORING DEVICES OR SAMPLING POINTS, AS THE LANDFILL'S CONTINUED SUCCESS DEPENDS ON CAREFUL CONTROL THROUGHOUT THE SERVICE LIFE AND AFTER CLOSURE. EXAMPLES ARE CITED OF LANDFILL SITES ACTUALLY USING COMPLETE LINER AND COVER SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011767

PUBLICATION DATE: JUN 84

TITLE: DESCRIPTION AND IMPLEMENTATION OF THE HAZARDOUS MATERIALS TRACKING SYSTEM (TRACKER).

PERSONAL AUTHOR: MESSENGER, M. M.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *DATABASES; *HAZARDOUS MATERIALS; *REPORTING; *RCRA; *TRACKER; *REGULATIONS; *U.S. ARMY

DESCRIPTIVE NOTE: 20P. PRICE CODE: PC A02/MF A01. ORDER NO.: AD-A144 107/0

ABSTRACT: THE HANDLING, STORAGE, AND DISPOSAL OF HAZARDOUS

MATERIALS HAVE BECOME THE FOCUS OF STRINGENT REGULATION UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA). ONE REQUIREMENT OF THIS ACT IS THAT ALL GENERATORS OF LEGALLY DEFINED HAZARDOUS WASTES REPORT TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) ON THE VOLUMES AND TYPES OF WASTES PRODUCED. AMENDMENTS TO THE CLEAN WATER ACT (CWA) ALSO REQUIRE THE DEVELOPMENT OF A SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) PLAN AT EVERY ARMY INSTALLATION. THE SPCC MUST PINPOINT LOCATIONS ON POST WHERE HAZARDOUS MATERIALS ARE STORED. THIS REPORT OUTLINES THE FEATURES OF A COMPUTERIZED TRACKING SYSTEM THAT INTERFACES THE ARMY INSTALLATION PROCUREMENT SYSTEM WITH A DATABASE OF KNOWN HAZARDOUS ITEMS TO PRODUCE A MONTHLY LISTING OF THE TYPES AND AMOUNTS OF HAZARDOUS MATERIALS PROCURED BY EACH UNIT ON POST. THIS LISTING CAN BE USED TO COMPLY WITH THE REQUIREMENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011768

PUBLICATION DATE: AUG 84

TITLE: WATER CHEMICALS CODEX: SUPPLEMENTARY RECOMMENDATIONS FOR DIRECT ADDITIVES.

DESCRIPTOR: *CHEMICAL ADDITIVES; *CHEMICALS; *DRINKING WATER; *RECOMMENDATIONS; *REFERENCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 25P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-240753

ABSTRACT: REPORT CONTAINS MONOGRAPHS FOR CHEMICALS USED TO PREPARE POTABLE WATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011769

PUBLICATION DATE: OCT 82

TITLE: MANUAL FOR HIGHWAY STORM WATER PUMPING STATIONS. VOLUME 1.

PERSONAL AUTHOR: LEVER, W. F.

DESCRIPTOR: *DESIGN; *HIGHWAYS; *ENGINEERING; *MANUALS; *PUMPING STATIONS; *STORM WATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 407P. PRICE CODE: PC A18/MF A01. ORDER NO.: PB84-241017

ABSTRACT: THE PURPOSE OF THIS MANUAL IS TO PROVIDE A COMPREHENSIVE SOURCE OF DESIGN INFORMATION ON STORM WATER PUMPING STATIONS FOR HIGHWAY FACILITIES. HOWEVER, USERS ARE CAUTIONED TO USE PROPER ENGINEERING JUDGMENT AND MUST THEMSELVES BE ENTIRELY RESPONSIBLE FOR ANY INTERPRETATIONS AND APPLICATIONS OF THE DATA AND OPINIONS SET FORTH HEREIN. AN INITIAL FIELD SURVEY WAS CONDUCTED TO DETERMINE THE PRESENT PRACTICES AND EXPERIENCES IN SEVERAL STATES, WHICH PROVED TO BE EXTREMELY VARIED, WITH SOME BASIC DIFFERENCES IN DESIGN CONCEPTS. VARIOUS TYPES OF PUMPING STATIONS ARE DISCUSSED IN THE EARLY CHAPTERS, WITH GUIDANCE AS TO WHICH MIGHT BE EXPECTED TO BE MOST SUITABLE FOR VARIOUS CONDITIONS. LATER CHAPTERS DEAL WITH STATION MACHINERY AND FEATURES, INCLUDING ELECTRICAL SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011770

PUBLICATION DATE: OCT 82

TITLE: MANUAL FOR HIGHWAY STORM WATER PUMPING STATIONS. VOLUME 2.

PERSONAL AUTHOR: LEVER, W. F.

DESCRIPTOR: *DESIGN; *HIGHWAYS; *ENGINEERING; *MANUALS; *PUMPING STATIONS; *STORM WATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 228P. PRICE CODE: PC A11/MF A01. ORDER NO.: PB84-241025

ABSTRACT: THE PURPOSE OF THIS MANUAL IS TO PROVIDE A COMPREHENSIVE SOURCE OF DESIGN INFORMATION ON STORM WATER PUMPING STATIONS FOR HIGHWAY FACILITIES. HOWEVER, USERS ARE CAUTIONED TO USE PROPER ENGINEERING JUDGMENT AND MUST THEMSELVES BE ENTIRELY RESPONSIBLE FOR ANY INTERPRETATIONS AND APPLICATIONS OF THE DATA AND OPINIONS SET FORTH HEREIN. AN INITIAL FIELD SURVEY WAS CONDUCTED TO DETERMINE THE PRESENT PRACTICES AND EXPERIENCES IN SEVERAL STATES, WHICH PROVED TO BE EXTREMELY VARIED, WITH SOME BASIC DIFFERENCES IN DESIGN CONCEPTS. VARIOUS TYPES OF PUMPING STATIONS ARE DISCUSSED IN THE EARLY CHAPTERS, WITH GUIDANCE AS TO WHICH MIGHT BE EXPECTED TO BE MOST SUITABLE FOR VARIOUS CONDITIONS. LATER CHAPTERS DEAL WITH STATION MACHINERY AND FEATURES, INCLUDING ELECTRICAL SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011771

PUBLICATION DATE: MAR 83

TITLE: METHODS FOR WETLAND FUNCTIONAL ASSESSMENT. VOLUME 1. CRITICAL REVIEW AND EVALUATION CONCEPTS.

PERSONAL AUTHOR: ADAMUS, P. R.; AND OTHERS

DESCRIPTOR: *ASSESSMENT METHODS; EVALUATION; GROUNDWATER; *MANUALS; HABITATS; LAND USE; *HIGHWAYS; RECREATION; *WETLANDS; WATER RESOURCES

DESCRIPTIVE NOTE: 195P. PRICE CODE: PC A09/MF A01. ORDER NO.: PB84-241157

ABSTRACT: THE MANUAL PRESENTS A STATE-OF-THE-ART REVIEW OF WETLAND FUNCTIONS. FUNCTIONS COVERED INCLUDE GROUNDWATER RECHARGE AND DISCHARGE, FLOOD STORAGE AND DESYNCHRONIZATION, SHORELINE ANCHORING AND DISSIPATION OF EROSIVE FORCES, SEDIMENT TRAPPING, NUTRIENT RETENTION AND REMOVAL, FOOD CHAIN SUPPORT (DETRITAL EXPORT), HABITAT FOR FISH AND WILDLIFE, AND ACTIVE AND PASSIVE RECREATION. THE MANUAL COVERS ALL WETLAND TYPES IN THE 48 STATES, AND USES THE U.S. FISH AND WILDLIFE SERVICE DEFINITION AND CLASSIFICATION SYSTEM. IT EXAMINES THE VALIDITY, INTERACTIONS, AND POSSIBLE SIGNIFICANCE THRESHOLDS FOR THE FUNCTIONS, AS WELL AS DOCUMENTING THEIR UNDERLYING PROCESSES. POTENTIAL IMPACTS OF HIGHWAYS UPON EACH FUNCTION ARE DESCRIBED AND, WHERE AVAILABLE, POSSIBLE THRESHOLDS ARE GIVEN.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011772

PUBLICATION DATE: MAR 83

TITLE: METHOD FOR WETLAND FUNCTIONAL ASSESSMENT. VOLUME 2. FHWA (FEDERAL HIGHWAY ADMINISTRATION) ASSESSMENT METHOD.

PERSONAL AUTHOR: ADAMUS, P. R.; AND OTHERS

DESCRIPTOR: *ASSESSMENT METHODS; GROUNDWATER; *MANUALS; HABITATS; LAND USE; *FEDERAL HIGHWAY ADMINISTRATION; *HIGHWAYS; RECREATION; *WETLANDS; WATER RESOURCES

DESCRIPTIVE NOTE: 141P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB84-241165

ABSTRACT: THE MANUAL PROVIDES A RAPID ASSESSMENT PROCEDURE FOR SCREENING FUNCTIONAL VALUES OF WETLANDS. FUNCTIONS COVERED INCLUDE GROUNDWATER RECHARGE AND DISCHARGE, FLOOD STORAGE AND DESYNCHRONIZATION, SHORELINE ANCHORING AND DISSIPATION OF EROSIVE FORCES, SEDIMENT TRAPPING, NUTRIENT RETENTION AND REMOVAL, FOOD CHAIN SUPPORT (DETRITAL EXPORT), HABITAT FOR FISH AND WILDLIFE, AND ACTIVE AND PASSIVE RECREATION. THE METHOD CAN BE USED FOR ALL WETLAND TYPES IN THE 48 COTERMINOUS STATES, AND USES THE U.S. FISH AND WILDLIFE SERVICE DEFINITION AND CLASSIFICATION SCHEME. THE METHOD ALSO CAN BE USED TO EVALUATE FUNCTIONS ON MANY RIVERS AND LAKES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011773

PUBLICATION DATE: JUN 84

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE ALUMINUM FORMING POINT SOURCE CATEGORY. VOLUME 1.

PERSONAL AUTHOR: GOODWIN, J. K.

DESCRIPTOR: *ALUMINUM; *EFFLUENT LIMITATIONS; *EPA; *GUIDELINES; *INDUSTRIAL WASTES; *METALS; *STANDARDS; *USEPA; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 715P. PRICE CODE: PC A99/MF E04. ORDER NO.: PB84-244425

ABSTRACT: THIS DOCUMENT PROVIDES THE DATA AND RATIONALE USED TO DEVELOP THE EFFLUENT LIMITATIONS AND STANDARDS FOR THE ALUMINUM FORMING POINT SOURCE CATEGORY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011774

PUBLICATION DATE: JUN 84

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE ALUMINUM FORMING POINT SOURCE CATEGORY. VOLUME 2.

PERSONAL AUTHOR: GOODWIN, J. K.

DESCRIPTOR: *ALUMINUM; *EFFLUENT LIMITATIONS; *EPA; *GUIDELINES; *INDUSTRIAL WASTES; *METALS; *STANDARDS; *USEPA; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 594P. PRICE CODE: PC A25/MF A01. ORDER NO.: PB84-244433

ABSTRACT: THIS DOCUMENT PROVIDES THE DATA AND RATIONALE USED TO DEVELOP THE EFFLUENT LIMITATIONS AND STANDARDS FOR THE ALUMINUM FORMING POINT SOURCE CATEGORY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011775

PUBLICATION DATE: FEB 84

TITLE: DATA ACQUISITION FOR ENVIRONMENTAL TRANSPORT AND FATE SCREENING FOR COMPOUNDS OF INTEREST TO THE OFFICE OF EMERGENCY AND REMEDIAL R

PERSONAL AUTHOR: JABER, H. M.; AND OTHERS

DESCRIPTOR: *AQUATIC SYSTEMS; *CHEMICALS; *EQUILIBRIUM; *KINETIC CONSTANTS; *ORGANIC COMPOUNDS; *PHYSICAL PROPERTIES

DESCRIPTIVE NOTE: 156P. PRICE CODE: PC A08/MF A01. ORDER NO.: PB84-245281

ABSTRACT: PHYSICAL PROPERTIES, EQUILIBRIUM, AND KINETIC CONSTANTS FOR EVALUATING THE TRANSFORMATION AND TRANSPORT IN AQUATIC SYSTEMS FOR ORGANIC CHEMICALS OF INTEREST TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S OFFICE OF EMERGENCY

AND REMEDIAL RESPONSE HAVE BEEN OBTAINED FROM THE LITERATURE AND CALCULATED FROM THEORETICAL OR EMPIRICAL RELATIONS. VALUES FOR SELECTED PHYSICAL PROPERTIES SUCH AS MELTING POINT, BOILING POINT, VAPOR PRESSURE, WATER SOLUBILITY, AND OCTANOL/WATER PARTITIONING, AND FOR RATE CONSTANTS SUCH AS HYDROLYSIS, MICROBIAL DEGRADATION, PHOTOLYSIS, AND OXIDATION ARE LISTED FOR EACH CHEMICAL ALONG WITH THE SOURCE OF THE DATA. VALUES ARE REPORTED IN UNITS SUITABLE FOR USE IN A CURRENT AQUATIC FATE MODEL. A DISCUSSION OF THE EMPIRICAL RELATIONSHIPS BETWEEN WATER SOLUBILITY, OCTANOL/WATER PARTITION COEFFICIENTS, AND PARTITION COEFFICIENTS FOR SEDIMENT AND BIOTA IS PRESENTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011776

PUBLICATION DATE: 84

TITLE: BACTERIAL INDICATORS OF RECREATIONAL WATER QUALITY.

PERSONAL AUTHOR: DUFOUR, A. P.

DESCRIPTOR: *BACTERIA; *BACTERIAL INDICATORS; *PERFORMANCE EVALUATION; *PUBLIC HEALTH; *RECREATION; *WATER QUALITY

DESCRIPTIVE NOTE: 9P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-245547

ABSTRACT: THE SELECTION OF BACTERIAL INDICATORS OF RECREATIONAL WATER QUALITY ARE CONSIDERED WITH RESPECT TO SUGGESTED IDEAL CHARACTERISTICS, SUCH AS ASSOCIATION WITH PATHOGENS, GROWTH IN AQUATIC ENVIRONMENTS, RESISTANCE TO DISINFECTION AND EASE OF ENUMERATION, AND THROUGH THE USE OF EPIDEMIOLOGICAL-MICROBIOLOGICAL TECHNIQUES. ON THE BASIS OF THESE CONSIDERATIONS THE TRADITIONAL INDICATORS OF WATER QUALITY, TOTAL AND FECAL COLIFORMS, WERE FOUND TO BE CLEARLY INADEQUATE. CONVERSELY, E. COLI AND ENTEROCOCCI MET MOST OF THE IDEAL CHARACTERISTICS IN FRESHWATER ENVIRONMENTS, WHEREAS ONLY ENTEROCOCCI WERE FOUND TO BE EFFICIENT FOR INDEXING WATER QUALITY IN MARINE ENVIRONMENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011777

PUBLICATION DATE: 84

TITLE: ENTERIC PARASITES IN WORKERS OCCUPATIONALLY EXPOSED TO SEWAGE.

PERSONAL AUTHOR: CLARK, C. S.; AND OTHERS

DESCRIPTOR: *ENTERIC PARASITES; *HEALTH; *PARASITIC DISEASES; *OCCUPATIONAL HAZARDS; *PERSONNEL; *RESEARCH REPORTS; *SAFETY; *PUBLIC UTILITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 76P. PRICE CODE: NOT AVAILABLE NTIS. PUBLISHED IN JNL. OF OCCUPATIONAL MEDICINE. ORDER NO.: PB84-243971

ABSTRACT: TO DETERMINE IF PARASITIC INFECTIONS OCCUR MORE FREQUENTLY AMONG WORKERS EXPOSED TO WASTEWATER THAN AMONG CONTROLS, PARASITOLOGIC EXAMINATIONS WERE PERFORMED ON STOOL SPECIMENS COLLECTED OVER A 12-MONTH PERIOD FROM SEWER AND HIGHWAY MAINTENANCE WORKERS. THREE OF 56 SEWER MAINTENANCE WORKERS (5.4%) HAD AT LEAST ONE POSITIVE SPECIMEN COMPARED WITH 10 OF 69 HIGHWAY WORKERS ENGAGED IN STREET CLEANING. CONTRARY TO STUDIES CONDUCTED OUTSIDE THE UNITED STATES, THE PRESENT STUDY DOES NOT INDICATE THAT PARASITIC INFECTIONS OCCUR MORE FREQUENTLY AMONG SEWER WORKERS THAN AMONG CONTROLS IN THE URBAN MIDWESTERN UNITED STATES. THE RESULTS OF THIS STUDY INDICATE THAT THERE MAY BE A RISK OF PARASITIC INFECTIONS AMONG STREET CLEANERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011778

PUBLICATION DATE: 84

TITLE: COMPARATIVE CARCINOGENIC AND MUTAGENIC ACTIVITY OF COAL TAR AND PETROLEUM ASPHALT PAINTS USED IN POTABLE WATER SUPPLY SYSTEMS.

PERSONAL AUTHOR: ROBINSON, M.; AND OTHERS

DESCRIPTOR: *ASPHALT; *COAL TAR; *CARCINOGENS; *PETROLEUM; *PAINTS; *PUBLIC HEALTH; *PIPES; *STORAGE TANKS; *WATER SUPPLY; *WATER QUALITY; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 10P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-244185

ABSTRACT: COAL TAR AND PETROLEUM ASPHALT PAINTS USED AS COATINGS FOR WATER PIPES AND STORAGE TANKS WERE TESTED IN THE AMES MUTAGENESIS AND THE MOUSE SKIN CARCINOGENESIS BIOASSAYS. ONE COAL TAR PRODUCT WAS POSITIVE WHEN TESTED AS A COMPLETE CARCINOGEN IN THE MOUSE, WHEREAS THE ASPHALT PAINT WAS NEGATIVE. THE BIOLOGICAL RESPONSES TO THE PRODUCTS WERE GREATER THAN EXPECTED FROM THEIR POLYCYCLIC AROMATIC HYDROCARBON (PAH) CONTENT. THESE FINDINGS SUGGEST THAT THE HAZARD POSED BY THESE COATINGS MAY NOT BE FULLY EXPLAINED BY THEIR PAH CONTENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011779

PUBLICATION DATE: SEP 84

TITLE: HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. 1976 - JUNE, 1983 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CHROMATOGRAPHY; *LABORATORY

PROCEDURES; *LIQUID CHROMATOGRAPHY; *ORGANIC COMPOUNDS; *POLLUTION; *SEPARATION TECHNIQUES; *WASTES

DESCRIPTIVE NOTE: 336P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-875343

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HIGH-PERFORMANCE (OR HIGH-PRESSURE OR HIGH-SPEED) LIQUID CHROMATOGRAPHY TECHNIQUES AND APPLICATIONS. THE CHARACTERIZATION, ANALYSIS, DETECTION, AND SEPARATION OF VARIOUS SUBSTANCES (INCLUDING POLYCYCLIC AROMATIC COMPOUNDS, POLLUTANTS, AND WASTES) ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 295 CITATIONS, NONE OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011780

PUBLICATION DATE: SEP 84

TITLE: HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. JULY, 1983 - SEPTEMBER, 1984 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CHROMATOGRAPHY; *LABORATORY PROCEDURES; *LIQUID CHROMATOGRAPHY; *ORGANIC COMPOUNDS; *POLLUTION; *SEPARATION TECHNIQUES; *WASTES

DESCRIPTIVE NOTE: 83P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-875350

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HIGH-PERFORMANCE (OR HIGH-PRESSURE OR HIGH-SPEED) LIQUID CHROMATOGRAPHY TECHNIQUES AND APPLICATIONS. THE CHARACTERIZATION, ANALYSIS, DETECTION, AND SEPARATION OF VARIOUS SUBSTANCES (INCLUDING POLYCYCLIC AROMATIC COMPOUNDS, POLLUTANTS, AND WASTES) ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 73 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011781

TITLE: PRINCIPLES OF WATER RESOURCES PLANNING.

PERSONAL AUTHOR: GOODMAN, ALVIN S.

DESCRIPTOR: *ADMINISTRATION; *FINANCES; *GUIDES; *INSTRUCTIONAL MATERIALS; *LEGAL ASPECTS; *MANAGEMENT; *MODELING; *PLANNING; *POSTSECONDARY EDUCATION; *PROJECT EVALUATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 563P. PRICE: $34.95

ABSTRACT: THE AMOUNT OF DETAIL IN THIS WORK MAKES IT USEFUL AS A GUIDE AND REFERENCE FOR THE PRACTITIONERS OF WATER RESOURCES PLANNING AND MANAGEMENT. AFTER PROVIDING SOME BASIC CONCEPTS THE AUTHOR DISCUSSES PROJECT ELEMENTS, POPULATION AND WATER NEEDS, PROJECT EVALUATION, REGIONAL PLANNING, PUBLIC INVOLVEMENT, ECONOMIC AND FINANCIAL ANALYSES, MODELING, ENVIRONMENTAL AND SOCIAL IMPACTS, LEGAL ASPECTS, ADMINISTRATION, AND NUMEROUS OTHER TOPICS. IT PROVIDES DIAGRAMS, TABLES, MAPS, AND OTHER USEFUL ILLUSTRATIONS AND DATA.

AVAILABILITY: PRENTICE-HALL, INC., ENGLEWOOD CLIFFS, NJ 07632

IRIS ACCESSION NUMBER: EW011782

TITLE: SEWERAGE REHABILITATION MANUAL.

DESCRIPTOR: *MAINTENANCE; *REHABILITATION; *SEWERS; *UNITED KINGDOM; *WASTEWATER COLLECTION

ABSTRACT: THIS PUBLICATION REPRESENTS THE CULMINATION OF SEVERAL YEARS OF RESEARCH AND SEWER REHABILITATION BY THE WATER RESEARCH CENTER (WRC) IN CONJUNCTION WITH THE UK WATER INDUSTRY. IT OFFERS SEWERAGE ENGINEERS WORLDWILDE THE FIRST SYSTEMATIC AND COMPREHENSIVE APPROACH TO PROBLEMS ASSOCIATED WITH SEWERS.

AVAILABILITY: WRC ENGINEERING, P. O. BOX 85, FRANKLAND ROAD, BLAGROVE, SWINDON, WILTSHIRE, SN5 8YR, UNITED KINGDOM

IRIS ACCESSION NUMBER: EW011783

PUBLICATION DATE: 84

TITLE: EUROWATER.

DESCRIPTOR: *EUROPE; HISTORY; FINANCES; LEGISLATION; MANAGEMENT; POLICIES; RESEARCH; TRENDS; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER SUPPLY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 988P. PRICE: $17.00

ABSTRACT: THIS BOOK HAS BEEN PRODUCED BY THE EUROPEAN WATER POLLUTION CONTROL ASSOCIATION ON THE ACTIVITIES OF MEMBER COUNTRIES. THERE ARE 13 CHAPTERS UNIFORMLY COVERING THE HISTORY, STRUCTURE, LEGISLATION, FINANCE, WATER SUPPLY, WATER TREATMENT, SEWAGE TREATMENT, SEWAGE DISPOSAL, RIVER MANAGEMENT, WASTEWATER TREATMENT, FUNDING AND RESEARCH POLICIES OF THE MEMBERS IN AUSTRIA, BELGIUM, DENMARK, FEDERAL REPUBLIC OF GERMANY, FINLAND, FRANCE, ITALY, THE NETHERLANDS, NORWAY, SPAIN, SWEDEN, SWITZERLAND AND THE UNITED KINGDOM.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, DATA MANAGEMENT DEPARTMENT, 2626 PENNSYLVANIA AVENUE, N. W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW011784

PUBLICATION DATE: JUL 84

TITLE: EPA METHOD STUDY 17, METHOD 607 - NITROSAMINES. PROJECT SUMMARY.

PERSONAL AUTHOR: MILLAR, JOHN D.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EPA METHOD STUDIES; *LABORATORY PROCEDURES; *METHOD STUDIES; *NITROSAMINES; *WATER ANALYSIS; *WATER

DESCRIPTIVE NOTE: 3P. FOR COMPLETE REPORT: ORDER NO.: PB84-207646; PRICE: $10.00

ABSTRACT: THIS REPORT DESCRIBES THE RESULTS OBTAINED AND DATA ANALYSES FROM AN INTERLABORATORY EVALUATION OF EPA METHOD 607 (NITROSAMINES).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011785

PUBLICATION DATE: MAR 84

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS) SUPPLEMENT XVII.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION; INDEXES; *INSTRUCTIONAL MATERIALS; PESTICIDES; POSTSECONDARY EDUCATION; *TECHNOLOGY; WASTE DISPOSAL; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 121P. PRICE: $4.00

ABSTRACT: COMPILED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION, AS WELL AS MATERIALS RELATED TO PESTICIDES, HAZARDOUS WASTES, AND PUBLIC PARTICIPATION. SOURCES OF ABSTRACTED/INDEXED MATERIALS INCLUDE ALL LEVELS OF GOVERNMENT, PRIVATE CONCERNS, AND EDUCATIONAL INSTITUTIONS. TITLE, AUTHOR(S), PUBLICATION DATE, CROSS-REFERENCES, DESCRIPTORS, AND AVAILABILITY ARE PROVIDED FOR EACH ENTRY. ALSO INCLUDED ARE PROCEDURES TO ILLUSTRATE HOW INSTRUCTORS AND CURRICULUM DEVELOPERS IN THE WATER QUALITY CONTROL FIELD CAN LOCATE INSTRUCTIONAL MATERIALS TO MEET VERY GENERAL OR HIGHLY SPECIFIC REQUIREMENTS OF THEIR PROGRAMS. THIS PUBLICATION SUPPLEMENTS AND DOES NOT REPLACE "WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS" OR IRIS SUPPLEMENETS 1-16.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011786

PUBLICATION DATE: JUL 84

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS) SUPPLEMENT XVIII.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION; INDEXES; *INSTRUCTIONAL MATERIALS; PESTICIDES; POSTSECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 121P. PRICE: $4.00

ABSTRACT: COMPILED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION, AS WELL AS MATERIALS RELATED TO PESTICIDES, HAZARDOUS WASTES, AND PUBLIC PARTICIPATION. SOURCES OF ABSTRACTED/INDEXED MATERIALS INCLUDE ALL LEVELS OF GOVERNMENT, PRIVATE CONCERNS, AND EDUCATIONAL INSTITUTIONS. TITLE, AUTHOR(S), PUBLICATION DATE, CROSS-REFERENCES, DESCRIPTORS, AND AVAILABILITY ARE PROVIDED FOR EACH ENTRY. ALSO INCLUDED ARE PROCEDURES TO ILLUSTRATE HOW INSTRUCTORS AND CURRICULUM DEVELOPERS IN THE WATER QUALITY CONTROL FIELD CAN LOCATE INSTRUCTIONAL MATERIALS TO MEET VERY GENERAL OR HIGHLY SPECIFIC REQUIREMENTS OF THEIR PROGRAMS. THIS PUBLICATION SUPPLEMENTS AND DOES NOT REPLACE "WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS" OR IRIS SUPPLEMENETS 1-17.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011788

PUBLICATION DATE: NOV 84

TITLE: DESIGN, START-UP, AND OPERATION OF AN OZONE DISINFECTION UNIT.

PERSONAL AUTHOR: RAKNESS, KERWIN L.; AND OTHERS

DESCRIPTOR: *DISINFECTION; *CHLORINE; *COSTS; *EQUIPMENT; *OPERATIONS (WASTEWATER); *OZONE; *PERFORMANCE EVALUATION; *SAFETY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1152-59P.

ABSTRACT: DESCRIBED ARE THE PERFORMANCE, CAPITAL COST AND OPERATING COST DATA FOR TWO DISINFECTION PROCESSES OF A WASTEWATER TREATMENT PLANT IN COLORADO. OZONATION IS SLIGHTLY MORE EXPENSIVE THAN CHLORINATION, BUT OFFERS ADVANTAGES .

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N11

IRIS ACCESSION NUMBER: EW011789

PUBLICATION DATE: 83

TITLE: A MODULAR THREE-DIMENSIONAL FINITE-DIFFERENCE GROUND-WATER FLOW MODEL.

PERSONAL AUTHOR: MCDONALD, MICHAEL G.; HARBAUGH, ARLEN W.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *GROUNDWATER; *FLOW MEASUREMENT; *MODELS; *WATER RESOURCES

DESCRIPTIVE NOTE: 528P. PRICE: $39.00. COMPUTER PROGRAM TAPE ALSO AVAILABLE.

ABSTRACT: A MODULAR THREE-DIMENSIONAL FINITE-DIFFERENCE GROUND-WATER FLOW MODEL (OF REPORT 83-875) AND ITS ASSOCIATED COMPUTER PROGRAM WERE RECENTLY DEVELOPED BY THE U.S. GEOLOGICAL SURVEY. THE MAIN OBJECTIVES IN DESIGNING A NEW MODEL WERE TO PRODUCE A PROGRAM THAT CAN BE READILY MODIFIED, IS SIMPLE TO USE AND MAINTAIN, CAN BE EXECUTED ON A VARIETY OF COMPUTERS WITH MINIMAL CHANGES, AND HAS THE ABILITY TO MANAGE THE LARGE DATA SETS REQUIRED WHEN RUNNING LARGE PROBLEMS. THE MODEL CONSISTS OF APPROXIMATELY 5,000 80-CHARACTER RECORDS AND MAY BE USED FOR EITHER TWO- OR THREE-DIMENSIONAL APPLICATIONS. THE MODULAR STRUCTURE CONSISTS OF A MAIN PROGRAM AND A SERIES OF HIGHLY INDEPENDENT SUBROUTINES CALLED MODULES WHICH ARE GROUPED INTO PACKAGES. EACH PACKAGE EITHER CONTRIBUTES TERMS TO THE FORMULATION OF FLOW EQUATIONS FOR A SPECIFIC HYDROLOGIC FEATURE OR SOLVES THE FLOW EQUATIONS. THE MODULAR STRUCTURE SIMPLIFIES USE OF THE PROGRAM AND UNDERSTANDING OF THE MATHEMATICAL AND PHYSICAL CONCEPTS ON WHICH THE MODEL IS BASED. IT ALSO FACILITATES DEVELOPMENT OF ADDITIONAL CAPABILITIES BECAUSE NEW MODULES OR PACKAGES CAN BE ADDED TO THE PROGRAM WITHOUT MODIFYING THE EXISTING ONES. THE PROGRAM CAN BE COMPILED UNDER BOTH FORTRAN '66 AND FORTRAN '77. IT HAS BEEN RUN, WITHOUT MODIFICATION, ON COMPUTERS MANUFACTURED BY MOST MAJOR COMPUTER COMPANIES. IT SHOULD RUN ON MOST MICRO-COMPUTERS WITH A MEMORY OF 512K. DOCUMENTATION (528 PAGES) PRESENTED IN THE REPORT INCLUDES A NARRATIVE DESCRIPTION, A FLOW CHART, A LIST OF VARIABLES, AND A PROGRAM LISTING FOR EACH MODULE. THE COMPUTER PROGRAM TAPE IS RECORDED WITH AN 800-BYTE BLOCKSIZE, 9-TRACK, AND UNLABELED. A CHOICE OF ASCII/EBCDIC AND 800 BPI/1600 BPI IS AVAILABLE. WHEN ORDERING TAPE, BE SURE TO SPECIFY TYPE AND BPI NUMBER.

AVAILABILITY: SCIENTIFIC PUBLICATIONS COMPANY, P.O. BOX 23041, WASHINGTON, DC 20026-3041

IRIS ACCESSION NUMBER: EW011790

TITLE: CONTINENTAL RADIOECOLOGY: SOIL AND FRESHWATER ECOSYSTEMS.

PERSONAL AUTHOR: KULIKOV, N. V.

DESCRIPTOR: *BIOLOGY; *AQUATIC ENVIRONMENTS; *ECOLOGY; *ECOSYSTEMS; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *RADIONUCLIDES; *RESEARCH; *SOILS

DESCRIPTIVE NOTE: 174P. PRICE: $29.50

ABSTRACT: THIS BOOK CONCERNS THE FIELD OF BIOLOGICAL SCIENCE THAT INVESTIGATES THE MECHANISMS OF THE MIGRATION, DISTRIBUTION, AND BIOLOGICAL EFFECTS OF RADIONUCLIDES IN ECOSYSTEMS OF DRY LAND AND INLAND WATERS.

AVAILABILITY: PLENUM PUBLISHING CORPORATION, 233 SPRING STREET, NEW YORK, NY 10013

IRIS ACCESSION NUMBER: EW011791

TITLE: MASS SPECTROMETRY IN ENVIRONMENTAL SCIENCES.

PERSONAL AUTHOR: KARASEK, F. W.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANALYTICAL CHEMISTRY; *ENVIRONMENTAL SCIENCES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MASS SPECTROMETRY; *POSTSECONDARY EDUCATION; *RESEARCH; *POLLUTION; *SPECTROSCOPY; *TOXICOLOGY

DESCRIPTIVE NOTE: 530P. PRICE: $75.00

ABSTRACT: THIS VOLUME PRESENTS AN IN-DEPTH PICTURE OF THE ADVANCES AND GROWTH IN THE FIELD OF MASS SPECTROSCOPY DEVELOPED FOR THE ANALYSIS OF ENVIRONMENTALLY IMPORTANT COMPOUNDS.

AVAILABILITY: PLENUM PUBLISHING CORPORATION, 233 SPRING STREET, NEW YORK, NY 10013

IRIS ACCESSION NUMBER: EW011792

PUBLICATION DATE: 81

TITLE: PERSONAL COMPUTERS IN CHEMISTRY.

PERSONAL AUTHOR: LYKOS, P.; WILKINS, C.

DESCRIPTOR: *CHEMISTRY; *COMPUTERS; *COMPUTER APPLICATIONS; *INSTRUCTIONAL MATERIALS; *MICROCOMPUTERS; *POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: PRICE: $33.50

ABSTRACT: THIS IS AN INTRODUCTION TO THE APPLICATION OF MICROPROCESSOR BASED COMPUTER SYSTEMS IN CHEMISTRY ENCOMPASSING USES FOR RESEARCH, MANAGEMENT, EDUCATION, AND WRITING. DISCUSSED ARE CONSIDERATIONS OF COST, RELIABILITY, MAINTENANCE, GRAPHIC DISPLAY, OPERATING SYSTEMS, AND LANGUAGES. APPLICATIONS DESCRIBED RANGE FROM USE OF A SMALL COMPUTER TO COLLECT DATA FROM OR CONTROL A SINGLE EXPERIMENT, TO AN INTERACTIVE LABORATORY DATA SYSTEM, "TALKING" MICROCOMPUTERS, CAPABLE OF SPEECH RECOGNITION AND SPEECH GENERATION, AND A DEVICE WHICH ENABLES CHEMISTS TO USE MANY MATHEMATICAL TOOLS EASILY.

AVAILABILITY: ANALYST'S BOOKSTORE, P. O. BOX 2097, CORVALLIS, OR 97339

IRIS ACCESSION NUMBER: EW011793

PUBLICATION DATE: 83

TITLE: MEETING THE NEEDS OF THE POOR FOR WATER SUPPLY AND WASTE DISPOSAL. A WORLD BANK TECHNICAL PAPER. VOLUME 13.

PERSONAL AUTHOR: COLLADAY, FREDRICK L.

DESCRIPTOR: *BARRIERS; *ECONOMICS; *INCENTIVES; *LOW-INCOME PEOPLE; RURAL AREAS; *WASTE DISPOSAL; *WATER SUPPLY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 62P.

ABSTRACT: THIS PAPER EXAMINES ECONOMIC, POLITICAL, SOCIAL AND CULTURAL OBSTACLES TO MEETING THE NEEDS OF LOW-INCOME PEOPLE FOR WATER SUPPLY AND WASTE DISPOSAL. IT SUGGESTS WAYS IN WHICH COMMUNICATIONS, PEER AND FAMILY SUPPORT FOR INNOVATORS, AND INCENTIVES CAN BE STRENGTHENED.

AVAILABILITY: THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, 1818 H STREET, N. W., WASHINGTON, DC 20433

IRIS ACCESSION NUMBER: EW011794

PUBLICATION DATE: 84

TITLE: APPLIED STREAM SANITATION. SECOND EDITION.

PERSONAL AUTHOR: VELZ, CLARENCE J.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SANITATION; *STREAMS; *RIVERS; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 800P. PRICE: $79.95

ABSTRACT: THIS PUBLICATION EMPHASIZES THE PRACTICAL OVER THE THEORETICAL IN DETAILING STREAM POLLUTION PROBLEMS AND RIVER QUALITY ASSOCIATED WITH VARIOUS TYPES OF WASTES AS THEY REACT IN THE REAL RIVER ENVIRONMENT. IT REDRESSES THE LACK OF SCIENTIFIC-ENGINEERING INTELLIGENCE AND DIRECTION IN THE FIELD OF WATER POLLUTION CONTROL AND MAKES RELIABLE PROJECTIONS ON WASTE ASSIMILATION CAPACITY AND THE RESULTANT WATER QUALITY OF THE STREAM.

AVAILABILITY: WILEY-INTERSCIENCE, 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW011795

PUBLICATION DATE: 84

TITLE: FLOW MEASURING FLUMES FOR OPEN CHANNEL SYSTEMS.

PERSONAL AUTHOR: BOS, MARINUS G.; AND OTHERS

DESCRIPTOR: *CANALS; *DESIGN; *DRAINS; *FLOW MEASUREMENT; *INSTRUCTIONAL MATERIALS; *FLUIDS; *OPEN CHANNEL SYSTEMS; *POSTSECONDARY EDUCATION; *SEWERS; *STREAMS; *WATER

DESCRIPTIVE NOTE: 336P. PRICE: $42.95

ABSTRACT: THIS IS A GUIDE TO THE DESIGN OF FLUMES FOR THE MEASUREMENT OF OPEN CHANNEL FLOWS IN IRRIGATION CANALS, DRAINS, NATURAL STREAMS, AND SEWERS. IT PROVIDES PRETESTED READY-TO-APPLY MEASURING-STRUCTURE DESIGNS--BOTH "LONG-THROATED FLUMES" AND "BROAD-CRESTED WEIRS."

AVAILABILITY: WILEY-INTERSCIENCE, 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW011796

PUBLICATION DATE: 84

TITLE: SURFACE WATER TREATMENT FOR COMMUNITIES IN DEVELOPING COUNTRIES.

PERSONAL AUTHOR: SCHULZ, CHRISTOPHER R.; OKUN, DANIEL A.

DESCRIPTOR: *DESIGN; *DEVELOPING COUNTRIES; *OPERATIONS (WATER); *SURFACE WATER; *SURVEYS; *UNIT PROCESSES; *WATER TREATMENT

DESCRIPTIVE NOTE: 312P. PRICE: $44.95

ABSTRACT: THIS IS A SURVEY OF WATER TREATMENT PRACTICES AROUND THE WORLD. COVERED ARE THE DESIGN AND CONSTRUCTION OF SURFACE WATER TREATMENT PLANTS IN DEVELOPING COUNTRIES. DETAILED ARE UNIT PROCESSES IN WATER TREATMENT, THE FUNCTION OF EACH PROCESS, AND DIFFERENCES BETWEEN DESIGN APPROACHES IN INDUSTRIALIZED AND DEVELOPING COUNTRIES.

AVAILABILITY: WILEY-INTERSCIENCE, 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW011797

PUBLICATION DATE: 84

TITLE: AN INTRODUCTION TO WATER QUALITY MODELLING.

PERSONAL AUTHOR: JAMES, A.

DESCRIPTOR: BIOLOGY; DESIGN; CHEMISTRY; *COMPUTER MODELS; HYDROLOGY; *INSTRUCTIONAL MATERIALS; *MODELS; POLLUTION; *POSTSECONDARY EDUCATION; *WATER QUALITY; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: [illegible]4P. PRICE: $34.95

ABSTRACT: THIS COLLECTION OF ESSAYS PRESENTS A SIMPLE INTRODUCTION TO THE USE OF MODELLING TECHNIQUES AND THEIR APPLICATIONS IN THE MANAGEMENT OF WATER QUALITY AND THE DESIGN AND OPERATION OF WASTEWATER TREATMENT PLANTS.

AVAILABILITY: WILEY-INTERSCIENCE, 605 THIRD AVENUE, NEW

YORK, NY 10158

IRIS ACCESSION NUMBER: EW011798

PUBLICATION DATE: 84

TITLE: POST-ACCIDENT PROCEDURES FOR CHEMICALS AND PROPELLANTS.

PERSONAL AUTHOR: SHAVER, DEBORAH K.; BERKOWITZ, ROBERT L.

DESCRIPTOR: *ACCIDENT MANAGEMENT; *CONTAINMENT; *CHEMICALS; *HAZARDOUS MATERIALS; *INFORMATION SOURCES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POSTSECONDARY EDUCATION; *PROPELLANTS; *REPORTING; *REFERENCE MATERIALS

DESCRIPTIVE NOTE: 236P. PRICE: $32.00

ABSTRACT: THIS MANUAL PRESENTS SPECIFIC DATA ON THE CONTROL AND MANAGEMENT OF HAZARDOUS MATERIALS. THE BOOK IS DIVIDED INTO FIVE SECTIONS, EACH OF WHICH CORRESPONDS TO A SEPARATE AREA OF ACCIDENT MANAGEMENT--FROM PRECAUTIONARY GUIDELINES ON REPORTING ACCIDENTS AND ASSESSING THE MAGNITUDE OF THE PROBLEM, TO MANAGEMENT AND CONTAINMENT. APPENDIXES PROVIDE INFORMATION ON CHEMICAL AND PHYSICAL PROPERTIES, ON-LINE INFORMATION RETRIEVAL SYSTEMS, INFORMATION SOURCES, LOCATIONS OF REGIONAL U.S. COAST GUARD AND EPA OFFICES, AND HAZARDOUS WASTE DISPOSAL SITES.

AVAILABILITY: NOYES PUBLICATIONS, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW011799

PUBLICATION DATE: 84

TITLE: WATER SCIENCE AND TECHNOLOGY: RIVER BASIN MANAGEMENT.

PERSONAL AUTHOR: NEWSOME, D. H., ED.; EDWARDS, A. M. C., ED.

DESCRIPTOR: *ADMINISTRATION; *CONFERENCE PROCEEDINGS; *ENVIRONMENTAL QUALITY; *MANAGEMENT; *PLANNING; *POLLUTION CONTROL; *RESEARCH; *RIVERS; *RIVER BASINS; *TECHNOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 665P.

ABSTRACT: BASED ON THE PROCEEDINGS OF A IAWPRC CONFERENCE HELD IN YORK, U.K., IN JULY 1983, THIS BOOK BRINGS TOGETHER RECENT WORK ON WATER QUALITY ASPECTS OF RIVER BASIN MANAGEMENT. THE MATERIAL IS ORGANIZED INTO FIVE THEMES, THE FIRST OF WHICH IS CONCERNED WITH CROSS FRONTIER MANAGEMENT OF WATER QUALITY AND THE EXTRA POLITICAL AND ADMINISTRATIVE DIMENSIONS THIS ENTAILS. THE SECOND THEME, THE CONTRIBUTION OF RIVER SYSTEMS TO ESTUARIAL AND MARINE POLLUTION, DISCUSSES THE IMPACT RIVER SYSTEMS CAN HAVE ON TIDAL WATER QUALITY. THE THIRD THEME IS DESIGNED TO ESTABLISH UNIFORM EMISSION STANDARDS THAT MEET ENVIRONMENTAL QUALITY OBJECTIVES MORE EFFICIENTLY AND ECONOMICALLY. IN THE FOURTH THEME, MORE INFORMATION IS PROVIDED FOR DEVELOPING RIVER BASIN MANAGEMENT STRATEGIES, AND THE FINAL THEME DRAWS TOGETHER RECENT RESEARCH AND ADMINISTRATIVE IDEAS FROM SEVERAL COUNTRIES.

AVAILABILITY: PERGAMON PRESS, MAXWELL HOUSE, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW011800

PUBLICATION DATE: 84

TITLE: TOXIC CONTAMINANTS IN THE GREAT LAKES.

PERSONAL AUTHOR: NRIAGU, JEROME O., ED.; SIMMONS, M. S., ED.

DESCRIPTOR: *CHEMICALS; *GREAT LAKES; *HAZARDOUS SUBSTANCES; *METALS; *ORGANIC COMPOUNDS; *POLLUTION CONTROL; *TOXIC SUBSTANCES; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 527P. PRICE: $95.00

ABSTRACT: THIS BOOK PROVIDES A PERSPECTIVE ON CONTAMINANTS IN THE GREAT LAKES. THE REVIEW INCLUDES METHODOLOGIES FOR MONITORING THE MAGNITUDE, EFFECTS, AND PERSISTENCE OF HAZARDOUS SUBSTANCES SUCH AS CHLORINATED HYDROCARBONS, POLYNUCLEAR AROMATIC HYDROCARBONS, METALS, AND METALLOIDS.

AVAILABILITY: JOHN WILEY AND SONS, 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW011801

PUBLICATION DATE: 84

TITLE: GROUNDWATER POLLUTION: ENVIRONMENTAL AND LEGAL PROBLEMS.

PERSONAL AUTHOR: TRAVIS, C. C., ED.; ETNIER, E. L., ED.

DESCRIPTOR: *FEDERAL ROLE; *GROUNDWATER; *ENVIRONMENT; *HYDROLOGY; *LEGAL PROBLEMS; *STATE ROLE; *SYMPOSIA; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 149P. PRICE: $23.00

ABSTRACT: THIS BOOK HIGHLIGHTS THE METHODOLOGICAL AND CONCEPTUAL DIFFICULTIES INHERENT IN PROTECTING THE NATION'S GROUNDWATER SUPPLIES AND PROVIDES UP-TO-DATE INFORMATION ON GROUNDWATER HYDROLOGY, THE NATURE AND EXTENT OF THE GROUNDWATER POLLUTION PROBLEM, AND THE POSSIBLE EFFECTS OF EXPOSURE TO CONTAMINATED DRINKING WATER. THE AUTHORS PROVIDE INSIGHT INTO THE DIFFICULT LEGAL ISSUES INVOLVED IN PROTECTING GROUNDWATER QUALITY AND STRESS THE NEED FOR A COMPREHENSIVE FEDERAL AND STATE GROUNDWATER PROTECTION PROGRAM. THE MATERIAL IS BASED ON A SYMPOSIUM THAT WAS HELD AT THE 1982 NATIONAL ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

AVAILABILITY: WESTVIEW PRESS, 5500 CENTRAL AVENUE, BOULDER, CO 80301

IRIS ACCESSION NUMBER: EW011802

PUBLICATION DATE: 84

TITLE: WATER SCIENCE AND TECHNOLOGY: RAINFALL AS THE BASIS OF URBAN RUN-OFF DESIGN AND ANALYSIS.

PERSONAL AUTHOR: HAREMOES, P., ED.

DESCRIPTOR: *DESIGN; *DRAINAGE SYSTEMS; *ENGINEERING; *RAINFALL; *SURFACE RUNOFF; *TECHNOLOGY; *URBAN AREAS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 368P.

ABSTRACT: THIS BOOK IS BASED ON MATERIAL PRESENTED IN THE SPECIALIZED SEMINAR HELD IN 1983 IN DENMARK, WHICH REVIEWED SIGNIFICANT RECENT DEVELOPMENTS IN DESIGN METHODS OF URBAN STORM DRAINAGE SYSTEMS. ONE BASIS FOR THESE DEVELOPMENTS IS THE AVAILABILITY OF COMPUTERS FOR DATA STORAGE AND COMPLICATED COMPUTATIONS. THE ARTICLES INCLUDED IN THIS WORK ATTEMPT TO SYNTHESIZE AVAILABLE RESULTS INTO NEW ENGINEERING APPROACHES. ALSO HIGHLIGHTED IS THE NEED FOR INCREASED METEOROLOGICAL AND STATISTICAL KNOWLEDGE ON RAIN EVENTS, ENABLING UP TO LAST MINUTE FORECASTS.

AVAILABILITY: PERGAMON PRESS, MAXWELL HOUSE, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW011803

PUBLICATION DATE: 84

TITLE: EFFECTS OF POLLUTANTS AT THE ECOSYSTEM LEVEL.

PERSONAL AUTHOR: SHEEHAN, PATRICK J.

DESCRIPTOR: *CASE HISTORIES; *CHEMICALS; *ECOSYSTEMS; *ENVIRONMENTAL IMPACTS; *POLLUTANTS

DESCRIPTIVE NOTE: 443P.

ABSTRACT: THIS COLLECTION OF REPORTS SUMMARIZES CURRENT KNOWLEDGE OF THE EFFECTS OF MAN-MADE CHEMICALS AND OTHER DISTURBANCES ON WHOLE ECOSYSTEMS. EACH FOCUSES ON EFFECTS TO THE STRUCTURE AND FUNCTION OF THE SYSTEM RATHER THAN ON DAMAGE TO INDIVIDUALS OR POPULATIONS CAUSED BY SPECIFIC CHEMICALS. A NUMBER OF CASE HISTORIES OF AQUATIC, MARINE, AND TERRESTRIAL SYSTEMS ARE GIVEN, INCLUDING SOME CASES IN WHICH SYSTEMS HAVE BEEN DAMAGED OR ARE ON THEIR WAY TO RECOVERY.

AVAILABILITY: JOHN WILEY AND SONS, 605 THIRD AVENUE, NEW YORK, NY 10016

IRIS ACCESSION NUMBER: EW011804

PUBLICATION DATE: JUN 84

TITLE: EVALUATION OF SEPTIC TANK SYSTEM EFFECTS ON GROUND WATER QUALITY.

PERSONAL AUTHOR: CANTER, L.; KNOX, R. C.

DESCRIPTOR: *EFFLUENTS; *GROUNDWATER; *SEPTIC TANKS; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 381P. PRICE CODE: PC A17/MF A01. ORDER NO.: PB84-244441

ABSTRACT: THIS STUDY SUMMARIZES LITERATURE CONCERNING THE TYPES AND MECHANISMS OF GROUND-WATER POLLUTION FROM SEPTIC TANK SYSTEMS AND PROVIDES INFORMATION ON METHODOLOGIES FOR EVALUATING THE GROUND WATER POLLUTION POTENTIAL. THE CONCLUSIONS ARE: (1) SEPTIC TANK SYSTEMS REPRESENT A SIGNIFICANT SOURCE OF GROUND-WATER POLLUTION IN THE UNITED STATES SINCE MANY SYSTEMS ARE EXCEEDING THEIR DESIGN LIFE, THE USAGE OF SYNTHETIC ORGANIC CHEMICALS IN THE HOUSEHOLD IS INCREASING, AND LARGER-SCALE SYSTEMS ARE BEING DESIGNED AND USED; (2) A KEY ISSUE IS RELATED TO UNDERSTANDING THE TRANSPORT AND FATE OF SYSTEM EFFLUENTS IN THE SUBSURFACE ENVIRONMENT; (3) NO SPECIFIC TECHNICAL METHODOLOGY EXISTS FOR EVALUATING GROUND WATER EFFECTS OF SEPTIC TANK SYSTEMS, HOWEVER, APPLICATION OF TWO EMPIRICAL ASSESSMENT METHODOLOGIES (SURFACE IMPOUNDMENT ASSESSMENT AND WASTE-SOIL-SITE INTERACTION MATRIX) ADJUSTED FOR ANNUAL WASTEWATER FLOW AND ANALYTICAL METHOD FOR DETERMINING WATER TABLE RISE, AND A SOLUTE-TRANSPORT MODEL FOR GROUND WATER FLOW AND POLLUTANT CONCENTRATIONS HAS MET WITH SOME SUCCESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011805

PUBLICATION DATE: SEP 84

TITLE: ALTERNATIVE DISINFECTION PROCESSES.

PERSONAL AUTHOR: STEVENS, A. A.; SYMONS, J. M.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *DISINFECTION; *DRINKING WATER; *WATER TREATMENT

DESCRIPTIVE NOTE: 44P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-246248

ABSTRACT: TRIHALOMETHANES ARE FORMED DURING DRINKING WATER TREATMENT WHEN THE FREE CHLORINE USED AS A DISINFECTANT COMBINES WITH TRIHALOMETHANE PRECURSORS, MAINLY HUMIC MATERIALS, PRESENT IN THE WATER. ONE APPROACH TO LOWERING TRIHALOMETHANE CONCENTRATIONS IN FINISHED DRINKING WATER IS BY SWITCHING FROM FREE CHLORINATION TO AN ALTERNATIVE DISINFECTION PROCESS. THE ALTERNATIVE PROCESSES VARY WIDELY IN THEIR TENDENCIES TO FORM BYPRODUCTS OTHER THAN TRIHALOMETHANES, THE STATE OF KNOWLEDGE OF THEIR RESPECTIVE

BYPRODUCT PRODUCTION, THEIR DISINFECTING CAPABILITIES, AND THE ENGINEERING CONSIDERATIONS ASSOCIATED WITH THEIR APPLICATION AS A TREATMENT PROCESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011806

PUBLICATION DATE: SEP 84

TITLE: TOXICOLOGY OF NATURAL AND MAN-MADE TOXICANTS IN DRINKING WATER.

PERSONAL AUTHOR: BULL, R. J.

DESCRIPTOR: *CHEMICAL REACTIONS; *DISINFECTION; *DRINKING WATER; *CHLORINE; *ORGANIC CHEMICALS; *TOXIC SUBSTANCES; *TOXICOLOGY

DESCRIPTIVE NOTE: 17P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-246233

ABSTRACT: DRINKING WATER OBTAINED FROM SURFACE SOURCES CONTAINS A VERY LARGE VARIETY OF ORGANIC CHEMICALS. THE TOTAL ORGANIC CARBON PRESENT IN THE SOURCE WATER IS MADE UP OF BOTH NATURAL AND MAN-MADE CHEMICALS. IN MOST INSTANCES NATURAL ORGANIC MATERIAL PREDOMINATES AND IS LARGELY MADE UP OF HUMIC AND FULVIC ACIDS. THE INTRODUCTION OF CHLORINE INTO DRINKING WATER RESULTS IN THE FORMATION OF A VARIETY OF BY-PRODUCTS INCLUDING THE TRIHALOMETHANES, HALOACETONITRILES, HALOGENATED ALDEHYDE AND HALOGENATED KETONE DERIVATIVES. REPRESENTATIVES OF THESE CLASSES OF CHEMICALS HAVE BEEN SHOWN TO BE MUTAGENIC AND/OR CARCINOGENIC. MORE RECENT STUDIES HAVE SHOWN THAT SIMILAR CHEMICALS ARE FORMED UPON DIRECT ADMINISTRATION OF CHLORINE SOLUTIONS TO RATS. THESE DATA SUGGEST THAT CHEMICAL INTERACTIONS BETWEEN A GROUP OF CHEMICALS THAT HAVE BEEN GENERALLY REGARDED AS SAFE (THE DISINFECTANTS) AND OTHER CHEMICALS OF A LOW LEVEL OF INTRINSIC TOXICITY (HUMIC ACIDS, STOMACH CONTENTS) PRODUCE POTENTIALLY HAZARDOUS PRODUCTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011807

PUBLICATION DATE: AUG 84

TITLE: TECHNOLOGY ASSESSMENT OF AQUACULTURE SYSTEMS FOR MUNICIPAL WASTEWATER TREATMENT.

PERSONAL AUTHOR: HYDE, H. C.; AND OTHERS

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *AQUACULTURE SYSTEMS; *ECONOMICS; *FACILITIES; *PERFORMANCE EVALUATION; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 133P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB84-246347

ABSTRACT: THE INNOVATIVE AND ALTERNATIVE TECHNOLOGY PROVISIONS OF THE CLEAN WATER ACT OF 1977 (PL 95-217) PROVIDE FINANCIAL INCENTIVES TO COMMUNITIES THAT USE WASTEWATER TREATMENT ALTERNATIVES TO REDUCE COSTS OR ENERGY CONSUMPTION OVER CONVENTIONAL SYSTEMS. SOME OF THESE TECHNOLOGIES HAVE BEEN ONLY RECENTLY DEVELOPED AND ARE NOT IN WIDESPREAD USE IN THE UNITED STATES. THIS DOCUMENT DISCUSSES THE APPLICABILITY AND TECHNICAL AND ECONOMIC FEASIBILITY OF USING AQUACULTURE SYSTEMS FOR MUNICIPAL WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011808

PUBLICATION DATE: OCT 84

TITLE: ACTIVATED CARBON. 1979-SEPTEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ACTIVATED CARBON; *INDUSTRIAL WASTES; *PERFORMANCE EVALUATION; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 243P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-875905

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF ACTIVATED CARBON FOR THE TREATMENT OF SEWAGE AND INDUSTRIAL WASTES. TOPICS INCLUDE PERFORMANCE EVALUATIONS AT SPECIFIC SITES, ENGINEERING STUDIES, AND REGENERATION TECHNIQUES. APPLICATIONS IN SEWAGE TREATMENT, COAL CONVERSION, PETROCHEMICAL, AND VARIOUS OTHER INDUSTRIES ARE PRESENTED. CITATIONS PERTAINING TO AIR POLLUTION CONTROL ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 244 CITATIONS, 88 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011[illegible]

PUBLICATION DATE: 83

TITLE: WETLANDS, FLOODPLAINS, EROSION, AND STORM WATER PUMPING.

PERSONAL AUTHOR: JUFFER, H. D.; AND OTHERS

DESCRIPTOR: *EROSION; *FLOODPLAINS; *HIGHWAYS; *REPORTS; *STORMWATER; *WETLANDS; *TRANSPORTATION

DESCRIPTIVE NOTE: 78P. PRICE CODE: PC A05/MF A01. ORDER NO.: PB85-102291

ABSTRACT: THE 10 PAPERS IN THIS REPORT DEAL WITH THE FOLLOWING AREAS: INNOVATIVE TECHNIQUE FOR PRELIMINARY HIGHWAY LOCATION; CONTROLLING ACIDIC-TOXIC METAL LEACHATES

FROM SOUTHERN APPALACHIAN CONSTRUCTION SLOPES: MITIGATING STREAM DAMAGE; HIGHWAY IMPACTS ON WETLANDS: ASSESSMENT, MITIGATION, AND ENHANCEMENT MEASURES; EVALUATION OF ARTIFICIAL WETLANDS IN NORTH DAKOTA: RECOMMENDATIONS FOR FUTURE DESIGN AND CONSTRUCTION; IMPACT OF BRIDGING ON FLOODPLAINS; GUIDE FOR ASSESSING WATER-QUALITY IMPACTS OF HIGHWAY OPERATIONS AND MAINTENANCE; SOIL EROSION STUDY OF EXPOSED HIGHWAY CONSTRUCTION SLOPES AND ROADWAYS; ROADSIDE EROSION CAUSES AND FACTORS: MINNESOTA SURVEY ANALYSIS; SCOUR AT CULVERT OUTLETS IN MULTIBED MATERIALS; AND, HYDRAULIC DESIGN OF STORMWATER PUMPING STATIONS: THE EFFECT OF STORAGE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011810

PUBLICATION DATE: JUL 84

TITLE: ECONOMIC IMPACT ANALYSIS OF EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE INORGANIC CHEMICALS INDUSTRY, PHASE 2.

DESCRIPTOR: *ECONOMICS; *EFFLUENT GUIDELINES; *GUIDELINES; *INORGANIC CHEMICALS; *INDUSTRIES; *REGULATIONS; *STANDARDS; *USEPA

DESCRIPTIVE NOTE: 98P. PRICE CODE: PC A05/MF A01. ORDER NO.: PB85-102374

ABSTRACT: THE U.S. EPA ISSUED EFFLUENT GUIDELINES AND LIMITATIONS FOR PHASE II OF THE INORGANIC CHEMICALS INDUSTRY IN JULY 1984. THIS REPORT EVALUATES THE EFFECTS THAT THIS REGULATION WILL HAVE ON 46 FACILITIES WHICH MANUFACTURE ONE OR MORE OF THE 17 INORGANIC CHEMICALS WHICH COMPRISE PHASE II OF THE INORGANIC CHEMICALS INDUSTRY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011811

PUBLICATION DATE: 84

TITLE: COMPUTER EDUCATION OF CHEMISTS.

PERSONAL AUTHOR: LYKOS, PETER

DESCRIPTOR: *COMPUTERS; *COMPUTER APPLICATIONS; *CHEMISTRY; *DATA PROCESSING; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *LABORATORY EQUIPMENT; *INSTRUMENTATION; *POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: 220P. PRICE: $32.50

ABSTRACT: THIS COMPENDIUM EXPLAINS STATE-OF-THE-ART APPLICATIONS OF COMPUTERS TO CHEMISTRY, FROM INTERFACING COMPUTERS WITH EXPERIMENTAL APPARATUS TO GRAPHIC REPRESENTATION OF DATA. A VARIETY OF COMPUTERS AND COMPUTER LANGUAGES ARE EXAMINED. THOROUGHLY EXPLORED ARE SIGNAL ANALYSIS, REAL-TIME CONTROL, CLUSTER ANALYSIS, ROBOTICS, CHEMOMETRICS, AND SERVO DEVICES.

AVAILABILITY: JOHN WILEY AND SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW011812

PUBLICATION DATE: 84

TITLE: THE LABORATORY MICROCOMPUTER: PROGRAMMING IN PASCAL AND MC68000 ASSEMBLY LANGUAGE ON THE IBM SYSTEM 9000.

PERSONAL AUTHOR: COOPER, JAMES W.

DESCRIPTOR: *ASSEMBLY LANGUAGE; *COMPUTERS; *COMPUTER SOFTWARE; *COMPUTER APPLICATIONS; *GUIDES; *IBM SYSTEM 9000; *LABORATORY ACTIVITIES; *LABORATORY APPLICATIONS; *MICROCOMPUTERS; *PASCAL

DESCRIPTIVE NOTE: 384P. PRICE: $29.00

ABSTRACT: THIS MANUAL SHOWS HOW TO COMPILE, EDIT, AND PRINT WITH CS/9000 PASCAL, AS WELL AS INTERFACE PASCAL TO MC68000 ASSEMBLY LANGUAGE ROUTINES FOR EVEN MORE POWERFUL PROGRAMS. PROVIDED ARE OVER 100 SAMPLE LABORATORY PROGRAMS THAT WILL RUN ON THE CS/9000 EXACTLY AS SHOWN. IN ADDITION, THE AUTHOR DEMONSTRATES HOW TO OPTIMIZE TIME-CRITICAL ROUTINES, GRAPHICS ROUTINES, AND FAST SPECTRUM DISPLAY ROUTINES. HE ALSO PROVIDES VALUABLE GUIDANCE ON USING THE ASM ASSEMBLY PROGRAM.

AVAILABILITY: JOHN WILEY AND SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW011813

PUBLICATION DATE: 84

TITLE: HAZARDOUS AND TOXIC MATERIALS: SAFE HANDLING AND DISPOSAL.

PERSONAL AUTHOR: FAWCETT, HOWARD E.

DESCRIPTOR: *ACCIDENT PREVENTION; *CHEMICALS; *HAZARDOUS MATERIALS; *HAZARDOUS WASTES; *MATERIALS HANDLING; *GUIDES; *REGULATIONS; *SAFETY; *TOXIC MATERIALS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 296P. PRICE: $35.00

ABSTRACT: THIS GUIDE DISCUSSES PROVEN TECHNIQUES FOR SAFE HANDLING, STORAGE, AND DISPOSAL OF CHEMICALS USED IN A WIDE VARIETY OF SITUATIONS. PROVIDED IS ADVICE ON HOW TO AVOID TOXIC, FIRE, AND EXPLOSION HAZARDS IN THE LABORATORY AS WELL AS THE DUMP SITE. NUMEROUS EXAMPLES ARE GIVEN ON (1) HANDLING PCBS, DIOXIN, PBBS, AND MORE, (2) WHAT PROTECTIVE EQUIPMENT IS NEEDED, (3) HOW TO MONITOR WORKER EXPOSURE, AND (4) HOW TO IMPLEMENT EPA REGULATIONS ECONOMICALLY. OVER 300 HAZARDOUS WASTE SITES ACROSS THE COUNTRY ARE LISTED BY

REGION.

AVAILABILITY: JOHN WILEY AND SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW011814

PUBLICATION DATE: 84

TITLE: SAFE STORAGE OF LABORATORY CHEMICALS.

PERSONAL AUTHOR: PIPITONE, DAVID A., ED.

DESCRIPTOR: *ACCIDENT PREVENTION; *CHEMICALS; *CHEMICAL STORAGE; *HAZARDOUS MATERIALS; *LABORATORY SAFETY; *SAFETY; *TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 288P. PRICE: $60.00

ABSTRACT: THIS BOOK WILL ASSIST YOU IN MAINTAINING CHEMICAL HEALTH AND SAFETY IN YOUR WORKPLACE. THIS VOLUME PROVIDES INFORMATION AS TO FUNDAMENTAL PRINCIPLES OF CHEMICAL STORAGE. INCLUDED IS INFORMATION ON THE VARIETY AND TYPE OF CHEMICAL STORAGE HAZARD, DEGREES OF HAZARDS, AND PRACTICAL GUIDELINES FOR ANALYZING AND CORRECTING DEFICIENCIES. PROBLEMS RELATED TO HAZARDOUS, FLAMMABLE, UNSTABLE AND INCOMPATIBLE CHEMICALS ARE DISCUSSED. ALSO INCLUDED ARE FACTS ABOUT SURVEYS AND INSPECTIONS, STORAGE SYSTEM, COMPUTERIZED WAREHOUSING FUNCTIONS, AND CHOOSING A COMPUTER FOR ITS INFORMATION RETRIEVAL FUNCTIONS.

AVAILABILITY: JOHN WILEY AND SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW011816

PUBLICATION DATE: 81

TITLE: SANITATION IN DEVELOPING COUNTRIES: PROCEEDINGS OF A WORKSHOP ON TRAINING HELD IN LOBATSE, BOTSWANA, 14-20 AUGUST 1980.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DEVELOPING COUNTRIES; *RURAL AREAS; *SANITATION; *TRAINING; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 172P.

ABSTRACT: THIS PROCEEDINGS DISCUSSES SANITATION AND WASTE-DISPOSAL TECHNIQUES IN ETHIOPIA, KENYA, TANZANIA, MALAWI, BOTSWAMA, ZAMBIA, MOZAMBIQUE, AND LESOTHO. IT EXAMINES DEVELOPMENT AND TRAINING PROGRAMS FOR PROFESSIONAL, TECHNICAL, AND VILLAGE-LEVEL PERSONNEL. RECOMMENDATIONS FOR SPECIFIC FOLLOWUP ACTIVITIES ARE INCLUDED.

AVAILABILITY: PUBLICATIONS MANAGER, INTERMEDIATE TECHNOLOGY PUBLICATIONS, LTD., 9 KING STREET, LONDON WC2E 8HN, UNITED KINGDOM

IRIS ACCESSION NUMBER: EW011817

PUBLICATION DATE: 81

TITLE: RURAL WATER SUPPLY IN DEVELOPING COUNTRIES: PROCEEDINGS OF A WORKSHOP ON TRAINING HELD IN ZOMBA, MALAWI, 5-12 AUGUST 1980

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DEVELOPING COUNTRIES; *GUIDELINES; *RURAL AREAS; *TRAINING; *WATER SUPPLY

DESCRIPTIVE NOTE: 144P.

ABSTRACT: DISCUSSED ARE LOW-COST RENEWABLE ENERGY TECHNOLOGIES NOW AVAILABLE OR BEING FIELD TESTED. EXAMINED ARE THE ROLE OF TRAINING IN OPERATION AND MAINTENANCE, COMMUNITY PARTICIPATION, HEALTH, EDUCATION, ECONOMIC, AND SOCIOCULTURAL ASPECTS OF WATER-SUPPLY DELIVERY. PRESENTED ARE GUIDELINES FOR NEW DIRECTIONS IN RURAL WATER SUPPLY TRAINING.

AVAILABILITY: PUBLICATIONS MANAGER, INTERMEDIATE TECHNOLOGY PUBLICATIONS LTD., 9 KING STREET, LONDON WC2E 8HN, UNITED KINGDOM

IRIS ACCESSION NUMBER: EW011818

PUBLICATION DATE: 81

TITLE: RURAL WATER SUPPLY IN CHINA.

DESCRIPTOR: *CHINA; *RURAL AREAS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 92P.

ABSTRACT: A TRANSLATION FROM FIVE CHINESE MANUALS ON WATER SUPPLY TECHNIQUES, THIS REPORT DISCUSSES POTABLE WATER, SOURCE IMPROVEMENT, WATER TREATMENT, SUPPLY CONFIGURATIONS, AND WELL DRILLING AND REPAIRS.

AVAILABILITY: PUBLICATIONS MANAGER, INTERMEDIATE TECHNOLOGY PUBLICATIONS LTD., 9 KING STREET, LONDON WC2E 8HN, UNITED KINGDOM

IRIS ACCESSION NUMBER: EW011819

PUBLICATION DATE: 83

TITLE: ENVIRONMENTAL CARCINOGENS: POLYCYCLIC AROMATIC HYDROCARBONS.

PERSONAL AUTHOR: GRIMMER, GERNOT

DESCRIPTOR: *CARCINOGENS; *HYDROCARBONS; *ENVIRONMENT; *INSTRUCTIONAL MATERIALS; *POLYCYCLIC AROMATIC HYDROCARBONS; *POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: 272P. PRICE: $85.00. CATALOG NO.: 6561VZ

ABSTRACT: INCLUDED ARE PRESENTATIONS ON THE OCCURRENCE, ANALYTICAL CHEMISTRY, BIOCHEMISTRY, AND CARCINOGENIC ACTIVITY OF THE MOST WIDELY DISTRIBUTED POLYCYCLIC AROMATIC HYDROCARBONS (PAH) IN THE ENVIRONMENT. DISCUSSED ARE THE SIGNIFICANCE OF CARCINOGENIC HYDROCARBONS AS POTENTIAL HAZARDS TO MAN AND INTERPRETATIONS OF OCCUPATIONAL MEDICINE, ANIMAL BIOASSAYS, AND EPIDEMIOLOGICAL STUDIES.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., N. W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW011821

PUBLICATION DATE: NOV 84

TITLE: DEVELOPMENT OF REVISED PRIMARY DRINKINK WATER REGULATIONS.

PERSONAL AUTHOR: COTRUVO, JOSEPH A.; VOGT, CRAIG

DESCRIPTOR: *DRINKING WATER; *PUBLIC HEALTH; *REGULATIONS; *USEPA; *WATER SUPPLY; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 34-38P.

ABSTRACT: USEPA OFFICIALS OUTLINE THE APPROACHES AND THE TIMETABLE FOR DEVELOPING REVISED DRINKING WATER REGULATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATIONS JOURNAL; V76 N11

IRIS ACCESSION NUMBER: EW011822

PUBLICATION DATE: NOV 84

TITLE: WATER HAMMER: CAUSES AND EFFECTS.

PERSONAL AUTHOR: KROON, JOSEPH R.; AND OTHERS

DESCRIPTOR: *DESIGN; *HYDRAULICS; *PIPES; *PLUMBING; *WATER DISTRIBUTION; *WATER HAMMER

DESCRIPTIVE NOTE: 39-43P.

ABSTRACT: THE DESTRUCTIVE FORCES OF WATER HAMMER ARE DESCRIBED TO REFRESH DESIGN ENGINEERS' UNDERSTANDING OF THE CIRCUMSTANCES UNDER WHICH IT CAN OCCUR.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N11

IRIS ACCESSION NUMBER: EW011823

PUBLICATION DATE: NOV 84

TITLE: POSTPRECIPITATION IN DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: COSTELLO, JAMES J.

DESCRIPTOR: CALCUIM CARBONATE; *CHEMICAL PRECIPITATION; ALUMINUM; IRON; LEAD; *POSTPRECIPITATION; *RECOMMENDATIONS; *WATER DISTRIBUTION; *WATER TREATMENT; ZINC

DESCRIPTIVE NOTE: 46-49P.

ABSTRACT: AS A RESULT OF CERTAIN WATER TREATMENT PRACTICES, PRECIPITATION OF METALS IN THE DISTRIBUTION SYSTEM CAN RESTRICT FLOW BY AS MUCH AS ONE HALF. A DESCRIPTION OF THE CAUSES OF POSTPRECIPITATION IS FOLLOWED BY A DISCUSSION OF THE EFFECTS OF THE PHENOMENON ON DISTRIBUTION PIPELINES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N11

IRIS ACCESSION NUMBER: EW011824

PUBLICATION DATE: NOV 84

TITLE: DISTRIBUTION SYSTEM MAPS AND RECORD-KEEPING.

PERSONAL AUTHOR: BATTS, LEONARD R.

DESCRIPTOR: *CASE STUDIES; MAPS; MICHIGAN; MAINTENANCE; *RECORDS; *RECORDKEEPING; TRAINING; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 50-53P.

ABSTRACT: ACCURATE MAPS AND RECORDS ARE VITAL TO THE FUNCTIONING OF A WATER DISTRIBUTION SYSTEM. DESCRIBED IS THE RECORDS SYSTEM FOR KALAMAZOO, MICHIGAN.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N11

IRIS ACCESSION NUMBER: EW011825

PUBLICATION DATE: NOV 84

TITLE: ESTIMATING MEAN COLIFORM DENSITIES OF WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: PIPES, WESLEY O.; CHRISTIAN, ROBERT R.

DESCRIPTOR: *BACTERIA; *COLIFORMS; *CONTAMINATION; MICROBIOLOGY; *MONITORING; *REGULATIONS; *SAMPLING; *WATER DISTRIBUTION; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 60-64P.

ABSTRACT: THIS ARTICLE PRESENTS EVIDENCE THAT THE AVERAGE NUMBER OF COLIFORMS IN MONITORING SAMPLES IS A POOR ESTIMATE OF THE MEAN COLIFORM DENSITY OF THE DISTRIBUTION SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N11

IRIS ACCESSION NUMBER: EW011826

PUBLICATION DATE: DEC 84

TITLE: WATER SYSTEM MAINTENANCE "RECORD KEEPING" MADE EASY.

PERSONAL AUTHOR: REEVES, PATRICK J.; KEARNS, H. J. PATRICK

DESCRIPTOR: *EQUIPMENT; *FACILITIES; *MAINTENANCE; *RECORD KEEPING; *RECORDS; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 40-41, 89P.

ABSTRACT: ONE WAY TO RUN A SUCCESSFUL WATER OPERATION IS TO KEEP GOOD RECORDS. THE AUTHORS DISCUSS THE TYPES OF RECORDS THAT ARE NEEDED.

AVAILABILITY: PUBLIC WORKS; V115 N12

IRIS ACCESSION NUMBER: EW011827

PUBLICATION DATE: DEC 84

TITLE: COMBINING GRANULAR ACTIVATED CARBON AND AIR STRIPPING.

PERSONAL AUTHOR: O'BRIEN, ROBERT P.; STENZEL, MARK H.

DESCRIPTOR: *AIR STRIPPING; *CHEMICALS; *DRINKING WATER; *GRANULAR ACTIVATED CARBON; *ORGANIC COMPOUNDS; *RESEARCH REPORTS; *WATER TREATMENT

DESCRIPTIVE NOTE: 54-58P.

ABSTRACT: REPORTED ARE THE RESULTS OF A STUDY CONDUCTED TO DETERMINE BENEFITS AND COST-EFFECTIVENESS OF COMBINING TWO TECHNOLOGIES FOR REMOVAL OF ORGANIC CHEMICALS FROM WATER.

AVAILABILITY: PUBLIC WORKS; V115 N12

IRIS ACCESSION NUMBER: EW011828

PUBLICATION DATE: DEC 84

TITLE: WATER STORAGE TANK INSPECTION AND CLEANING USING SCUBA.

PERSONAL AUTHOR: CONRADY, JOHN R.

DESCRIPTOR: *CLEANING; *COSTS; *INSPECTION; *MAINTENANCE; *SCUBA; *STORAGE TANKS; *WATER STORAGE; *WATER SUPPLY

DESCRIPTIVE NOTE: 60-61P.

ABSTRACT: BECAUSE OF THE DIFFICULTIES INVOLVED, INTERIOR WATER TANK INSPECTIONS ARE OFTEN NEGLECTED. AN ALTERNATIVE IS DISCUSSED.

AVAILABILITY: PUBLIC WORKS; V115 N12

IRIS ACCESSION NUMBER: EW011835

PUBLICATION DATE: JUN 84

TITLE: SIMPLIFIED PROCEDURE FOR CALCULATING CHEMICAL DOSES FOR WATER STABILIZATION FOR PREVENTION OF INTERNAL CORROSION AND SCALING.

PERSONAL AUTHOR: MORGAN, J. M.; COREV, T. M.

DESCRIPTOR: *COMPUTER APPLICATIONS; *CORROSION PREVENTION; *CORROSION; *CHEMICALS; *SCALING; *SCALE PREVENTION; *WATER STABILIZATION; *WATER TREATMENT; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 205P. PRICE CODE: PC A10/MF A01. ORDER NO.: AD-A144 670/7

ABSTRACT: THIS REPORT DOCUMENTS TWO APPROACHES FOR CALCULATING CHEMICAL FEED (I.E. LIME AND CARBON DIOXIDE) TO PRODUCE A STABLE WATER TO BE DISTRIBUTED IN [illegible] DRINKING WATER SYSTEM. THE PROCEDURES INCLUDE: (A) A GRAPHICAL SOLUTION EMBODIED IN NOMOGRAMS CONTAINED IN APPENDIX A OF THIS REPORT, AND (B) A COMPUTERIZED PROCEDURE, WRITTEN IN BASIC, WHICH CAN BE IMMEDIATELY IMPLEMENTED ON AN IBM PERSONAL COMPUTER OR APPLE II AND CAN BE USED ON OTHER SYSTEMS WITH ONLY MINOR MODIFICATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011836

PUBLICATION DATE: OCT 84

TITLE: WATER QUALITY MODELING: HYDROLOGICAL AND LIMNOLOGICAL SYSTEMS. OCTOBER, 1981 - SEPTEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *HYDROLOGY; *LIMNOLOGY; *MODELING; *MATHEMATICAL MODELS; *WATER QUALITY

DESCRIPTIVE NOTE: 52P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-876796

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE APPLICATION OF MATHEMATICAL MODELING TO HYDROLOGICAL AND LIMNOLOGICAL SYSTEMS. NUTRIENT REMOVAL IN LAKES AND RESERVOIRS, EFFECTS OF MINE DRAINAGE ON WATER QUALITY, AND VARIOUS PARAMETERS AFFECTING POLLUTANT FLOW IN AQUIFERS, STREAMS, AND RIVERS ARE DISCUSSED. PHYSICAL PROCESSES AFFECTING WATER QUALITY ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 48 CITATIONS, 31 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011837

PUBLICATION DATE: AUG 84

TITLE: UTILIZATIONS OF SEWAGE SLUDGE COMPOST AS A SOIL CONDITIONER AND FERTILIZER FOR PLANT GROWTH.

PERSONAL AUTHOR: HORNICK, S. B.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *COMPOST; *FERTILIZER; *LAND APPLICATION; *RECOMMENDATIONS; *SEWAGE SLUDGE; *SLUDGE; *SOIL CONDITIONER; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 37P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB85-103216

ABSTRACT: THIS BULLETIN PRESENTS INFORMATION ON HOW SEWAGE SLUDGE COMPOST CAN BE USED MOST EFFECTIVELY. IT INCLUDES DISCUSSIONS ON THE PROPERTIES OF SEWAGE SLUDGE COMPOST AS A SOIL CONDITIONER AND FERTILIZER FOR PLANT GROWTH AND ITS USE ON VEGETABLE CROPS, NURSERY CROPS AND ORNAMENTALS, TURFGRASSES, FIELD CROPS, FORAGE GRASSES, AND THE RECLAMATION OF MARGINAL LANDS. RECOMMENDATIONS BASED ON LABORATORY, GREENHOUSE, AND FIELD EXPERIMENTS PROVIDE METHODS, AND RATES OF COMPOST APPLICATION FOR DIFFERENT MANAGEMENT PRACTICES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011838

PUBLICATION DATE: 84

TITLE: EFFECTS OF NONCOLIFORMS ON COLIFORM DETECTION IN POTABLE GROUNDWATER: IMPROVED RECOVERY WITH AN ANAEROBIC MEMBRANE FILTER TECHNIQU

PERSONAL AUTHOR: FRANZBLAU, S. G.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COLIFORMS; *DRINKING WATER; *GROUNDWATER; *MONITORING; *WATER SUPPLY

DESCRIPTIVE NOTE: 10P. NOT AVAILABLE NTIS. PUBLISHED IN APPLIED AND ENVIRONMENTAL MICROBIOLOGY, V48 N1 P142-148 JUL 84

ABSTRACT: A TOTAL OF 529 WELL AND DISTRIBUTION POTABLE WATER SAMPLES WERE ANALYZED FOR TOTAL COLIFORMS BY THE MOST-PROBABLE-NUMBER AND MEMBRANE FILTER (MF) TECHNIQUES. STANDARD PLATE COUNT BACTERIA AND MF NONCOLIFORM BACTERIA WERE ALSO ENUMERATED. THIS ANAEROBIC MODIFICATION OF THE STANDARD MF TECHNIQUE SIGNIFICANTLY REDUCED OVERGROWTH AND ENHANCED RECOVERY OF COLIFORMS FROM POTABLE GROUNDWATER. THIS TECHNIQUE IS SIMPLE, COST EFFECTIVE, AND SUITABLE FOR MONITORING OF UNTREATED GROUND WATER COMMON TO SOME SMALL WATER SYSTEMS AND PRIVATE WATER SUPPLIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011839

PUBLICATION DATE: SEP 82

TITLE: NATIONWIDE URBAN RUNOFF PROGRAM, PRIORITY POLLUTANT ANALYSIS: FINAL REPORT.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *PRIORITY POLLUTANTS; *REPORTS; *SURFACE RUNOFF; *URBAN AREAS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 23P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB85-104529

ABSTRACT: THIS REPORT WAS DEVELOPED BASED ON THE ANALYTICAL ANALYSES PERFORMED TO ESTABLISH THE PRESENSE AND CONCENTRATION OF PRIORITY POLLUTANTS. IT INCLUDES QUALITY ASSURANCE/CONTROL DOCUMENTATION, ANALYTICAL RESULTS AND CONCLUSION BASED ON FINDINGS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011840

PUBLICATION DATE: OCT 84

TITLE: ENGINEERING ASPECTS OF WATERBORNE OUTBREAK INVESTIGATION.

PERSONAL AUTHOR: LIPPY, E. C.

DESCRIPTOR: *DISINFECTION; *ENGINEERING; *PUBLIC HEALTH; *SAMPLING; *WATER SUPPLY; *WATER TREATMENT; *WATER DISTRIBUTION; *WATERBORNE DISEASE

DESCRIPTIVE NOTE: 42P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB85-106102

ABSTRACT: THE SUBJECT MATERIAL IN THIS MANUSCRIPT COVERS THE ENGINEERING ASPECTS OF WATERBORN OUTBREAK INVESTIGATION. MAJOR AREAS INCLUDED IN THIS DISCUSSION ARE: EVALUATION OF DISINFECTION (CONCENTRATION AND CONTACT TIME, PH AND TEMPERATURE, INTERFERENCE); EVALUATION OF THE WATER SYSTEM ITSELF (SOURCE OF SUPPLY, TREATMENT, DISTRIBUTION NETWORK); SAMPLING FOR THE AGENT; AND COMMUNICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011841

PUBLICATION DATE: JUL 84

TITLE: REPORT TO THE CONGRESS ON OCEAN POLLUTION, MONITORING AND RESEARCH, OCTOBER 1982 THROUGH SEPTEMBER 1983.

DESCRIPTOR: *CONGRESSIONAL REPORTS; *ENVIRONMENTAL QUALITY; *MONITORING; *OCEANOGRAPHY; *OCEANS; *OCEAN POLLUTION;

*RESEARCH; *WATER QUALITY

DESCRIPTIVE NOTE: 79P. PRICE CODE: PC A05/MF A01. ORDER NO.: PB85-107076

ABSTRACT: THIS REPORT SUMMARIZES ACTIVITIES OF THE OCEAN ASSESSMENTS DIVISION (OAD), OFFICE OF OCEANOGRAPHY AND MARINE SERVICES, NATIONAL OCEAN SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), PERFORMED DURING FISCAL YEAR 1983. THE OAD CONDUCTS A COMPREHENSIVE, CONTINUING PROGRAM OF ASSESSMENT ACTIVITIES, INCLUDING RESEARCH, DEVELOPMENT, AND MONITORING, ON THE SHORT- AND LONG-TERM EFFECTS OF HUMAN ACTIVITIES ON THE MARINE ENVIRONMENT. THESE ACTIVITIES RESULT IN INFORMATION PRODUCTS AND SERVICES USEFUL FOR PLANNING AND DECISIONMAKING RELATED TO THE RESOLUTION OF MULTIPLE RESOURCE-USE CONFLICTS, INCLUDING ENVIRONMENTAL QUALITY PROBLEMS, IN THE ESTUARINE, COASTAL, AND OCEANIC AREAS OF THE UNITED STATES. OCEAN WASTE DISPOSAL ASSESSMENT REMAINED A HIGH PRIORITY DURING FISCAL YEAR 1983.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011842

PUBLICATION DATE: SEP 84

TITLE: FIELD MANUAL - PERFORMANCE EVALUATION AND TROUBLESHOOTING AT METAL-FINISHING WASTEWATER TREATMENT FACILITIES.

PERSONAL AUTHOR: SARGENT, T. N.; AND OTHERS

DESCRIPTOR: *FACILITIES; *MANUALS; *INDUSTRIAL WASTES; *METALS; *MAINTENANCE; *METAL INDUSTRY; *PERFORMANCE EVALUATION; *TROUBLESHOOTING; *UNIT PROCESSES; *WASTE TREATMENT

DESCRIPTIVE NOTE: 283P. PRICE CODE: PC A13/MF A01. ORDER NO.: PB85-107274

ABSTRACT: THIS MANUAL PROVIDES A TECHNICAL FIELD GUIDE OR REFERENCE DOCUMENT FOR USE IN IMPROVING THE PERFORMANCE OF FACILITIES FOR THE TREATMENT OF METAL FINISHING WASTES. THE MAIN PURPOSE OF THE MANUAL IS TO PROVIDE A TROUBLESHOOTING GUIDE FOR IDENTIFYING PROBLEMS, ANALYZING PROBLEMS, AND SOLVING PROBLEMS. THE MANUAL DESCRIBES GENERAL PROCEDURES FOR EVALUATING THE PERFORMANCE OF TREATMENT PROCESSES AND EQUIPMENT COMMONLY USED IN METAL FINISHING WASTE TREATMENT. THE PROCEDURES ALSO COVER OTHER ITEMS RELATED TO THE EFFECTIVE OPERATION OF TREATMENT FACILITIES. THE METHODOLOGY USED TO EVALUATE COMPLIANCE PROBLEMS AND DEVELOP OPERATORY AND MAINTENANCE SPECIFICS ARE DESCRIBED IN A REVIEW OF THE LITERATURE, FOLLOWED BY AN ASSESSMENT OF THE CAUSES OF PERMIT VIOLATIONS AND THE RECOMMENDED MEASURES FOR IMPROVING COMPLIANCE. THE UNIT PROCESSES DESCRIBED IN THIS MANUAL ARE THOSE COMMONLY USED IN THE TREATMENT OF METAL FINISHING WASTES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011843

PUBLICATION DATE: SEP 82

TITLE: INDUSTRIAL HYGIENE REVIEW MANUAL.

PERSONAL AUTHOR: DALEY, P. S.; RICCARDI, R. M.

DESCRIPTOR: *ACCIDENT PREVENTION; *BIOCHEMISTRY; *CHEMISTRY; *HEAT; *INDUSTRIAL HYGIENE; *MANUALS; *NOISE; *POLLUTION; *PUBLIC HEALTH; *SAFETY; *TOXICOLOGY

DESCRIPTIVE NOTE: 278P. PRICE CODE: PC A13/MF A01. ORDER NO.: PB85-103836

ABSTRACT: THE PURPOSE OF THE MANUAL IS TO PROVIDE A REVIEW COMPENDIUM FOR PRACTICING INDUSTRIAL HYGIENISTS. THE MANUAL DETAILS THOSE ASPECTS OF EACH SUBJECT WITH WHICH INDUSTRIAL HYGIENISTS SHOULD BE FAMILIAR. OUTLINES ARE SUPPLEMENTED BY QUESTIONS AND ANSWERS THAT ARE REPRESENTATIVE OF THE KNOWLEDGE USED IN THE FIELD. QUESTIONS AND ANSWERS WERE COLLECTED FROM A WIDE VARIETY OF SOURCES TO PROVIDE A BROAD VIEW OF INDUSTRIAL HYGIENE. TOPIC OUTLINES INCLUDE CHEMISTRY, BIOCHEMISTRY, PHYSICS, TOXICOLOGY, RESPIRATORY DISEASES, OCCUPATIONAL DERMATOSES, EXPOSURE CRITERIA, MEDICAL MONITORING, HEAT STRESS, EFFECTS OF AND PROTECTION FROM NOISE EXPOSURE, NOISE MEASUREMENT EVALUATION AND CONTROL, RESPIRATORY AND EYE PROTECTION, AIR SAMPLING AND ANALYSIS, AIR POLLUTION, ENVIRONMENTS WITH LIMITED OXYGEN, INDUSTRIAL VENTILATION, ERGONOMICS, HEALTH PHYSICS, NONIONIZING RADIATION, ILLUMINATION, STATISTICS IN INDUSTRIAL HYGIENE, AND OCCUPATIONAL SAFETY. THE MANUAL IS SUGGESTED FOR PERSONS PREPARING FOR INDUSTRIAL HYGIENE CERTIFICATION EXAMINATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011844

PUBLICATION DATE: 84

TITLE: THERMAL DISCHARGES.

PERSONAL AUTHOR: MILLER, DONALD S.; BRIGHOUSE, BARBARA A.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SURFACE DISCHARGES; *SUBSURFACE DISCHARGES; *THERMAL DISCHARGES; *THERMAL POLLUTION; *WATER DISCHARGES

DESCRIPTIVE NOTE: 221P. PRICE: $53.00

ABSTRACT: THE FIRST PART OF THIS GUIDE IS AN INTRODUCTION TO THERMAL DISCHARGES. ITS AIM IS TO ALLOW THE PREDICTION DATA FROM THE SECOND PART TO BE APPLIED WITH AN AWARENESS OF THE MAJOR FACTORS INFLUENCING THERMAL DISCHARGES. THE SECOND PART CONTAINS RECOMMENDED DATA, PREDICTION METHODS AND EXAMPLE PREDICTIONS FOR A RANGE OF DIFFERENT DISCHARGE ARRANGEMENTS. DETAILS OF THE ORIGINS OF THE DATA, FORMULAE AND FIGURES IN THE TEXT ARE GIVEN IN ONE OF THE CHAPTERS.

AVAILABILITY: LEARNED INFORMATION, INC., 143 OLD MARLTON

PIKE, MED FORD, NJ 08055

IRIS ACCESSION NUMBER: EW011845

PUBLICATION DATE: 84

TITLE: COMPRESSIBLE INTERNAL FLOW.

PERSONAL AUTHOR: MILLER, DONALD S.

DESCRIPTOR: *CALCULATIONS; *COMPRESSIBLE FLOW; *GAS FLOW; *INSTRUCTIONAL MATERIALS; *PIPES; *POSTSECONDARY EDUCATION; *VALVES

DESCRIPTIVE NOTE: 67P. PRICE: $35.00

ABSTRACT: THE IMPORTANT FEATURES OF COMPRESSIBLE FLOW IN PIPE AND DUCT SYSTEMS ARE OUTLINED. CALCULATION PROCEDURES ARE GIVEN FOR GAS FLOWS THROUGH COMPONENTS AND SYSTEMS ALONG WITH METHODS OF CORRECTING INCOMPRESSIBLE FLOW LOSS COEFFICIENTS TO APPLY TO COMPRESSIBLE FLOWS. EXAMPLE CALCULATIONS ARE INCLUDED, WHICH COVER COMPONENT AND PIPING SYSTEM PERFORMANCE, AS WELL AS THE PERFORMANCE OF CONTROL VALVES AND PRESSURE RELIEVING SYSTEMS.

AVAILABILITY: LEARNED INFORMATION, INC., 143 OLD MARLTON PIKE, MEDFORD, NJ 08055

IRIS ACCESSION NUMBER: EW011847

PUBLICATION DATE: 84

TITLE: PIPE PROTECTION: A REVIEW OF CURRENT PRACTICE. SECOND EDITION.

PERSONAL AUTHOR: GALKA, R. J.; YATES, A. P. J.

DESCRIPTOR: *ABRASION; *CORROSION; *INSTALLATION; *INSPECTION; *MAINTENANCE; *PIPES; *PIPE PROTECTION

DESCRIPTIVE NOTE: 109P. PRICE: $75.00

ABSTRACT: WITH EVER INCREASING DEMANDS BEING PUT UPON THE PIPELINE DESIGNER AND OPERATOR FROM GOVERNMENTAL LEGISLATION AND SOCIO-ECONOMIC CONSTRAINTS, CERTAIN ASPECTS OF PIPELINE DESIGN REQUIRE CONSTANT RESEARCH AND DEVELOPMENT. A MAJOR PROBLEM ASSOCIATED WITH PIPELINES HAS ALWAYS BEEN CORROSION, AND WHEN USED TO TRANSPORT ABRASIVE SLURRIES, ABRASION. THERE ARE NUMEROUS SYSTEMS AND MATERIALS AVAILABLE TO COMBAT BOTH CORROSION AND EROSION. HOWEVER, THE SEARCH FOR NEW AND IMPROVED TECHNIQUES IS EVER CONSTANT. THIS PUBLICATION PROVIDES A VARIETY OF INFORMATION ON PIPE LINE PROTECTION.

AVAILABILITY: LEARNED INFORMATION, INC., 143 OLD MARLTON PIKE, MEDFORD, NJ 08055

IRIS ACCESSION NUMBER: EW011849

PUBLICATION DATE: DEC 84

TITLE: AN OPERATIONAL APPROACH TO TRAINING NEEDS ANALYSIS.

PERSONAL AUTHOR: BUCALO, JOHN P., JR.

DESCRIPTOR: *ADMINISTRATION; *NEEDS ANALYSIS; *MANAGEMENT; *PERFORMANCE EVALUATION; *PLANNING; *RECOMMENDATIONS; *TRAINING

DESCRIPTIVE NOTE: 80-84P.

ABSTRACT: ORGANIZATIONAL OPERATIONS ARE THE HEART OF AN EFFECTIVE NEEDS ANALYSIS. ONCE THE DATA ARE ANALYZED THEN OPERATING ISSUES AND TRAINING ISSUES CAN BE IDENTIFIED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N12

IRIS ACCESSION NUMBER: EW011850

PUBLICATION DATE: 84

TITLE: A CITIZEN'S HANDBOOK ON GROUNDWATER PROTECTION.

PERSONAL AUTHOR: GORDON, WENDY

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *POLICIES; *POLLUTION CONTROL; *REGULATIONS; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 200P. PRICE: $7.50

ABSTRACT: THIS NEW BOOK, A CITIZEN'S HANDBOOK ON GROUNDWATER PROTECTION, PROVIDES CITIZENS WITH WAYS TO STEM THE TIDE OF GROUNDWATER CONTAMINATION AND PROTECT THIS VITAL RESOURCE FROM FURTHER DESPOIL. THE 200-PAGE HANDBOOK WAS WRITTEN BY WENDY GORDON, A SCIENTIST WITH THE NATURAL RESOURCES DEFENSE COUNCIL, FOR THE PURPOSE OF SUPPLYING CITIZENS, COMMUNITY GROUPS AND GOVERNMENT OFFICIALS WITH BASIC INFORMATION ABOUT GROUNDWATER, ITS CONTAMINATION, AND THE REGULATIONS AND METHODS BEING USED OR CONSIDERED TO PROTECT IT. WITH THIS INFORMATION, THE AUTHOR STATES, "CITIZENS ARE MUCH BETTER ABLE TO PARTICIPATE IN AND INFLUENCE THE DECISION-MAKING PROCESSES AT ALL LEVELS OF GOVERNMENT THAT WILL AFFECT THEIR GROUNDWATER SUPPLIES AND INITIATE FAR-SIGHTED GROUNDWATER PROTECTION PROGRAMS."

AVAILABILITY: NRDC GROUNDWATER HANDBOOK, 122 E. 42ND STREET, 45TH FLOOR, NEW YORK, NY 10168

IRIS ACCESSION NUMBER: EW011851

PUBLICATION DATE: 83

TITLE: FATE OF CHEMICALS IN THE ENVIRONMENT: COMPARTMENTAL MODELING FOR PREDICTIONS.

PERSONAL AUTHOR: SWANN, ROBERT L., ED.; ESCHENROEDER, ALAN, ED.

DESCRIPTOR: *AIR POLLUTION; *CHEMICALS; *ENVIRONMENTAL IMPACT; *MODELS; *ORGANIC COMPOUNDS; *PUBLIC HEALTH; *RISK ASSESSMENT; *WATER POLLUTION

DESCRIPTIVE NOTE: 326P. PRICE: $44.95

ABSTRACT: BRINGS TOGETHER USER-ORIENTED INFORMATION COVERING MANY ASPECTS OF ENVIRONMENTAL FATE MODELING. PRESENTS A COMPREHENSIVE VIEW OF THE MODELS AVAILABLE AND THEIR PRACTICAL APPLICATIONS. INCLUDES A GENERIC OVERVIEW OF THE MAIN BUILDING BLOCKS OF MODELS AND THE FRAMEWORK OF LOGIC CONNECTING THE COMPONENTS. FIVE SECTIONS COVER CHEMICAL RELEASE, ENVIRONMENTAL MODELS, MULTIMEDIA MODELS, MODEL VALIDATION, MODEL PARAMETERS, AND HUMAN RISK ASSESSMENT.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBITION OFFICE DEPT. 399, 1155 SIXTEENTH STREET, N. W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011852

PUBLICATION DATE: 84

TITLE: ENVIRONMENTAL SAMPLING FOR HAZARDOUS WASTES.

PERSONAL AUTHOR: SCHWEITZER, GLENN E., ED.; SANTOLUCITO, JOHN A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *HAZARDOUS MATERIALS; *HAZARDOUS WASTES; *SAMPLING; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 144P. PRICE: $34.95

ABSTRACT: UNDERLINES THE CONCERN AND NEED FOR IMPROVED METHODS OF ENVIRONMENTAL SAMPLING. SURVEYS THE PROBLEMS OF COLLECTING REPRESENTATIVE SAMPLES, ENSURING THE CHEMICAL INTEGRITY OF SAMPLES FROM COLLECTION TO ANALYSES, AND CHARACTERIZING AND MONITORING CONTAMINATION SITES. EXAMINES THE IMPORTANT ASPECTS OF DESIGNING AND IMPLEMENTING SAMPLING PROGRAMS, EMPHASIZING SURFACE AND SUBSURFACE SAMPLING FOR HAZARDOUS WASTES.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 339, 1155 SIXTEENTH STREET, N. V., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011853

PUBLICATION DATE: 84

TITLE: CHEMICAL CARCINOGENS, SECOND EDITION.

PERSONAL AUTHOR: SEARLE, CHARLES E., ED.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CANCER; *CARCINOGENS; *CHEMICALS; *ENVIRONMENT; *HEALTH; *OCCUPATIONAL HEALTH; *ORGANIC COMPOUNDS; *PREVENTIVE MEDICINE; *PUBLIC HEALTH; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 1430P. PRICE: $129.95

ABSTRACT: THIS PUBLICATION IS A REVISION OF A PREVIOUS PUBLICATION. IT HAS BEEN UPDATED AND EXPANDED TO PROVIDE IMPORTANT NEW INFORMATION IN THE STUDY OF CHEMICAL CARCINOGENS AND THE PREVENTION OF CANCER. OFFERS THE LATEST RESEARCH ON CHEMICAL CARCINOGENIC AGENTS AND THEIR IMPORTANCE FOR IDENTIFYING OCCUPATIONAL AND ENVIRONMENTAL CAUSES FOR CANCER PREVENTION.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 399, 1155 SIXTEENTH STREET, N. W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011854

PUBLICATION DATE: 84

TITLE: ASSESSMENT AND MANAGEMENT OF CHEMICAL RISKS.

PERSONAL AUTHOR: RODRICKS, JOSEPH V., ED.; TARDIFF, ROBERT G., ED.

DESCRIPTOR: *CHEMICALS; *CHEMICAL RISKS; *MANAGEMENT; *PUBLIC HEALTH; *REGULATIONS; *RISK ASSESSMENT; *RISK MANAGEMENT

DESCRIPTIVE NOTE: 184P. PRICE: $34.95

ABSTRACT: IDENTIFIES THE ESSENTIAL ELEMENTS OF RISK ASSESSMENT AND MANAGEMENT FOR THOSE HAVING TO MAKE DECISIONS ABOUT CHEMICAL RISKS. EXAMINES THE RELATIONSHIP BETWEEN RISK MANAGEMENT AND RISK ASSESSMENT AND SHOWS HOW BOTH MANAGEMENT AND ASSESSMENT ARE NEEDED TO MAKE DECISIONS ABOUT CHEMICAL RISKS. POINTS OUT THE FUNDAMENTAL PROBLEMS FACING CHEMICAL RISK MANAGERS AND LOOKS AT THE PROCESS OF DECIDING WHETHER AN ASSESSED RISK NEEDS TO BE CONTROLLED AND VARIOUS OPTIONS FOR MANAGING THE RISK.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 399, 1155 SIXTEENTH STREET, N. W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011855

PUBLICATION DATE: 84

TITLE: GEOCHEMICAL BEHAVIOR OF DISPOSED RADIOACTIVE WASTES.

PERSONAL AUTHOR: BARNEY, G. S., ED.; AND OTHERS

DESCRIPTOR: *MONITORING; *PUBLIC HEALTH; *RADIOACTIVE WASTES; *RESEARCH; *WASTE DISPOSAL; *WASTE TREATMENT

DESCRIPTIVE NOTE: 413P. PRICE: $79.95

ABSTRACT: EXAMINES THE COMPLEX ISSUE OF RADIOACTIVE WASTE DISPOSAL AND THE HEALTH HAZARDS AT UNDERGROUND WASTE SITES.

ASSESSES THE CHEMICAL AND PHYSICAL BEHAVIOR OF WASTES FROM THE NUCLEAR FUEL CYCLE, FROM NUCLEAR WEAPONS TESTING, AND FROM MEDICAL AND RESEARCH ACTIVITIES. REPORTS IN A SINGLE SOURCE THE MOST RECENT AND SIGNIFICANT FINDINGS IN THIS CONTROVERSIAL AREA AND LOOKS AT IMPORTANT ONGOING RESEARCH.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 399, 1155 SIXTEENTH STREET, N. W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011856

PUBLICATION DATE: 84

TITLE: TREATMENT AND DISPOSAL OF PESTICIDE WASTES.

PERSONAL AUTHOR: KRUEGER, RAYMOND F., ED.; SEIBER, JAMES N., ED.

DESCRIPTOR: *ORGANIC COMPOUNDS; *PESTICIDES; *POLLUTION CONTROL; *REGULATIONS; *SAFETY; *WASTE DISPOSAL; *WASTE TREATMENT; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 373P. PRICE: $64.95

ABSTRACT: OUTLINES THE PROBLEMS OF PESTICIDE WASTE DISPOSAL WITH SPECIAL EMPHASIS ON DEVELOPING BETTER DISPOSAL STRATEGIES. EXAMINES THE CHEMICAL, BIOLOGICAL, AND PHYSICAL METHODS OF DISPOSAL, THE BASIC PRINCIPLES UNDERLYING EACH OF THESE METHODS, AND ANALYTICAL AND MODELING APPROACHES APPLICABLE TO WASTE DISPOSAL CONDITIONS. ALSO LOOKS AT THE EPA REGULATORY VIEWPOINT ON SAFE DISPOSAL. INCLUDES SOME NOVEL APPROACHES THAT HAVE POTENTIAL FOR WIDE SCALE USE IN THE FUTURE.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, DISTRIBUTION OFFICE DEPT. 399, 1155 SIXTEENTH STREET, N. W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011857

PUBLICATION DATE: AUG 84

TITLE: EPA METHOD STUDY 18 METHOD 608 - ORGANOCHLORINE PESTICIDES AND PCB'S. PROJECT SUMMARY.

PERSONAL AUTHOR: MILLER, JOHN D.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EPA METHOD STUDY; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; *METHOD STUDIES; *PCBS; *PESTICIDES; *WASTEWATER; *WATER

DESCRIPTIVE NOTE: 4P. PRICE: $17.50. ORDER NO.: PB84-211 358

ABSTRACT: THIS REPORT DESCRIBES THE RESULTS OBTAINED AND DATA ANALYSES FROM AN INTERLABORATORY STUDY OF EPA METHOD 608 (ORGANOCHLORINE PESTICIDES AND PCB'S). THE METHOD IS ASSESSED QUANTITATIVELY WITH RESPECT TO THE ACCURACY AND PRECISION THAT CAN BE EXPECTED. IN ADDITION, RESULTS OF METHOD DETECTION LIMIT STUDIES ARE INCLUDED AS ARE QUALITATIVE ASSESSMENTS OF THE METHOD BASED UPON COMMENTS BY THE PARTICIPATING LABORATORIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011858

PUBLICATION DATE: 84

TITLE: ATOMIC ABSORPTION SPECTROMETRY IN OCCUPATIONAL AND ENVIRONMENTAL HEALTH PRACTICE. VOLUME I: ANALYTICAL ASPECTS AND HEALTH SIGNIFI

PERSONAL AUTHOR: TSALEV, D. L., ED.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ATOMIC ABSORPTION SPECTROMETRY; *CHEMICALS; *ENVIRONMENTAL HEALTH; *METALS; *OCCUPATIONAL HEALTH; *TOXICOLOGY; *TRACE ELEMENTS

DESCRIPTIVE NOTE: 264P. CATALOG NO.: 5603WN. PRICE: $78.00. FOR A RELATED DOCUMENT SEE ALSO EW 011 859.

ABSTRACT: THIS PUBLICATION CONTAINS SECTIONS ON THE FOLLOWING TOPICS: (1) ATOMIC ABSORPTION SPECTROMETRY AS AN ANALYTICAL METHOD IN OCCUPATIONAL AND ENVIRONMENTAL HEALTH PRACTICE; AND (2) BIOLOGICAL AND TOXICOLOGICAL CHARACTERISTICS OF INDIVIDUAL ELEMENTS.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., N. W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW011859

PUBLICATION DATE: 84

TITLE: ATOMIC ABSORPTION SPECTROMETRY IN OCCUPATIONAL AND ENVIRONMENTAL HEALTH PRACTICE. VOLUME II: DETERMINATION OF INDIVIDUAL ELEMENTS

PERSONAL AUTHOR: TSALEV, D. L., ED.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ATOMIC ABSORPTION SPECTROMETRY; *CHEMICALS; *ELEMENTAL ANALYSIS; *ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH; *MEATLS; *TOXICOLOGY; *TRACE ELEMENTS

DESCRIPTIVE NOTE: 312P. CATALOG NO.: 5604 WN. PRICE: $78.00. FOR A RELATED DOCUMENT SEE ALSO EW 011 858.

ABSTRACT: THIS PUBLICATION CONTAINS INFORMATION ON THE FOLLOWING ELEMENTS: ALUMINUM, ANTIMONY, ARSENSIC, BARIUM, BERYLIUM, BISMUTH, BORON, CADMIUM, CHROMIUM, COBALT, COPPER, GALLIUM, GERMANIUM, GOLD, INDIUM, IRON, LEAD, LITHIUM, MANGANESE, MERCURY, MOLYBDENUM, NICKEL, PALLADIUM, PLATINUM, RUBIDIUM, SELENIUM, SILICON, SILVER, STRONTIUM, TELLURIUM, THALLIUM, TIN, VANADIUM, AND ZINC.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., N. W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW011860

PUBLICATION DATE: 84

TITLE: CRC HANDBOOK OF ATOMIC ABSORPTION ANALYSIS: VOLUME I.

PERSONAL AUTHOR: VARMA, ASHA

DESCRIPTOR: *ATOMIC ABSORPTION ANALYSIS; *ANALYTICAL TECHNIQUES; *CHEMICALS; *HANDBOOKS; *INSTRUMENTATION; *LABORATORY PROCEDURES; *METALS

DESCRIPTIVE NOTE: 528P. CATALOG NO.: 2985WN. PRICE: $99.00. FOR RELATED DOCUMENT SEE EW 011 861.

ABSTRACT: THIS HANDBOOK IS A COMPREHENSIVE REFERENCE TO AND CRITICAL EVALUATION OF THE WORLD LITERATURE ON ATOMIC ABSORPTION SPECTROSCOPY. IT INCLUDES AN INTRODUCTION TO THE BASIC THEORY AND INSTRUMENTATION, EXPLAINS PREPARATION OF STANDARD AND SAMPLE SOLUTIONS, AND CONSIDERS CAUSES OF INTERFERENCES AND THEIR CARE. THE DEVELOPMENT OF INSTRUMENTATION IS ALSO DISCUSSED. OVER 10,000 REFERENCES ARE PROVIDED IN EACH OF THE TWO VOLUMES, AND EACH REFERENCE IS CROSS-INDEXED IN SUBJECT AND AUTHOR INDEXES AT THE END OF EVERY CHAPTER. INDIVIDUAL CHAPTERS COVER A GROUP OF ELEMENTS, WITH AN INTRODUCTION, INSTRUMENTAL SET-UP PARAMETERS, INTERFERENCES AND REFERENCES GIVEN FOR EACH ELEMENT. VOLUME I CONTAINS THE FOLLOWING TOPICS: (1) ATOMIC ABSORPTION SPECTROSCOPY, GENERAL INSTRUMENTATION; (2) GROUP IA ELEMENTS - ALKALI METALS; (3) GROUP IIA ELEMENTS - ALKALINE EARTH METALS; (4) GROUP IIIB ELEMENTS; (5) GROUP IVB ELEMENTS; (6) GROUP VB ELEMENTS; (7) GROUP VIB ELEMENTS; (8) GROUP VIIB ELEMENTS; AND (9) GROUP VIII ELEMENTS.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., N. W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW011861

PUBLICATION DATE: 84

TITLE: CRC HANDBOOK OF ATOMIC ABSORPTION ANALYSIS: VOLUME II.

PERSONAL AUTHOR: VARMA, ASHA

DESCRIPTOR: *ATOMIC ABSORPTION ANALYSIS; *ANALYTICAL TECHNIQUES; *CHEMICALS; *HANDBOOKS; *INSTRUMENTATION; *LABORATORY PROCEDURES

DESCRIPTIVE NOTE: 464P. CATALOG NO.: 2986WN. PRICE: $89.00. FOR RELATED DOCUMENT SEE EW 011 860.

ABSTRACT: THIS IS VOLUME II IN THE SERIES. SEE EW 011 860 FOR VOLUME I. VOLUME II CONTAINS THE FOLLOWING: (1) GROUP IB ELEMENTS; (2) GROUP IIB ELEMENTS; (3) GROUP IIA ELEMENTS; (4) GROUP IVA ELEMENTS; (5) GROUP VA ELEMENTS; (6) GROUP VIA ELEMENTS; (7) GROUP VIIA ELEMENTS; (8) ZERO GROUP ELEMENTS; (9) ZERO GROUP (INSERT GASES; NOBLE GASES); (10) APPENDIXES: GLOSSARY; (11) LIST OF ABSTRACTS AND REVIEWS; (12) GENERAL REFERENCES; (13) LIST OF HOLLOW CATHODE LAMPS; AND (14) LIST OF MANUFACTURERS OF SPECTROMETERS AND ACCESSORIES.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., N. W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW011862

PUBLICATION DATE: OCT 84

TITLE: ACID PRECIPITATION: EFFECTS ON THE AQUATIC ECOSYSTEM. 1977 - SEPTEMBER, 1984 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ACID PRECIPITATION; *AQUATIC ECOSYSTEMS; *ENVIRONMENTAL IMPACTS; *RESEARCH

DESCRIPTIVE NOTE: 320P. PRICE CODE: PC N01/MF N01. ORDER NO.: BP84-876879

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ACID RAIN AND ITS EFFECT ON AQUATIC ECOSYSTEMS. PHYSIOLOGICAL AND REPRODUCTIVE EFFECTS ON FISH AND OTHER AQUATIC POPULATIONS ARE CONSIDERED. EXPOSURE PATHWAYS, FACTORS AFFECTING THE ACIDIFICATION OF LAKES AND PONDS, AND THE KNOWN AND PROJECTED CONSEQUENCES ARE DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 364 CITATIONS, 122 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011863

PUBLICATION DATE: OCT 84

TITLE: DEEP-WELL DISPOSAL. 1976 - OCTOBER, 1984 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *DEEP-WELL DISPOSAL; *POLLUTION CONTROL; *PUBLIC HEALTH; *REGULATIONS; *RISK ANALYSIS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 193P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877042

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING DEEP WELL DISPOSAL TECHNOLOGY, INCLUDING DEEP GEOLOGIC, DEEP ROCK, AND DEEP SHAFT REPOSITORIES. WASTE DISPOSALS TREATED ARE RADIOACTIVE, CHEMICAL AND GEOPRESSURED. REGULATIONS, ENVIRONMENTAL PROTECTION, RISK AND SAFETY ANALYSIS, FLUID AND RADIONUCLIDE MIGRATION ARE DISCUSSED. RESEARCH WORK ON MICROBIAL DECOMPOSITION OF ORGANIC WASTE IN DEEP WELLS IS MENTIONED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 221 CITATIONS, 29 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011864

PUBLICATION DATE: 84

TITLE: BASIC ISSUES IN WATER CHLORINATION: A CHEMICAL PERSPECTIVE.

PERSONAL AUTHOR: JOLLEY, R. L.

DESCRIPTOR: *CHEMICALS; *CHLORINATION; *DISINFECTION; *HEALTH; *ISSUES; *RESEARCH REPORTS; *TRIHALOMETHANES; *WATER TREATMENT

DESCRIPTIVE NOTE: 32P. PRICE CODE: PC A03/MF A01. ORDER NO.: DE84014081

ABSTRACT: RESULTS FROM SELECTED RESEARCH PAPERS PUBLISHED SINCE THE LAST CONFERENCE (ASILOMAR, 1981) ARE REVIEWED AND SUMMARIZED. ALTHOUGH MUCH PROGRESS HAS BEEN MADE IN DEVELOPING PREDICTIVE MODELS FOR CHLORINATION DISCHARGES, ADDITIONAL DATA ARE NEEDED FOR REACTION RATES AND MECHANISMS OVER A WIDER TEMPERATURE RANGE, ESPECIALLY FOR TRANSFORMATION AND DECOMPOSITION REACTIONS OF CHLORINE AND CHLORINE-PRODUCED OXIDANTS. SIGNIFICANT ADVANCES HAVE ALSO BEEN MADE TOWARD UNDERSTANDING THE FORMATION OF TRIHALOMETHANES AND THE CHLORINATION OF HUMIC MATERIALS, AND TOWARD IDENTIFICATION OF CHLORINATION PRODUCTS IN COOLING WATERS, PAPER INDUSTRY EFFLUENTS, AND WASTEWATERS; HOWEVER, BECAUSE OF THE VAST NUMBER OF CHLORINATION PRODUCTS, MUCH REMAINS UNKNOWN IN THIS AREA. FURTHER RESEARCH IS ESPECIALLY NEEDED TO EXPAND OUR KNOWLEDGE CONCERNING PRODUCTS FROM THE WATER CHLORINATION TREATMENT OF FOOD MATERIALS BECAUSE ONLY VERY LIMITED INFORMATION IS AVAILABLE. 102 REFERENCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011865

PUBLICATION DATE: OCT 84

TITLE: WATER RESOURCES AND WATER QUALITY: EFFECTS OF LAND USE AND URBANIZATION. SEPTEMBER, 1981 - SEPTEMBER, 1984 (CITATIONS FROM THE NT

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *LAND USE; *MODELS; *POLICIES; *URBAN AREAS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 64P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877075

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE EFFECTS OF LAND USE AND URBAN DEVELOPMENT ON WATER SUPPLY QUALITY AND QUANTITY. TOPICS INCLUDE APPROPRIATE LOCAL, STATE, AND FEDERAL GOVERNMENT POLICIES, AND THE UTILIZATION OF MATHEMATICAL MODELS AS PREDICTIVE TOOLS. STUDIES PERFORMED AT SPECIFIC LOCALITIES ARE INCLUDED IF THEY PROVIDE COMPREHENSIVE STRATEGIES THAT CAN BE APPLIED TO OTHER LOCATIONS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 71 CITATIONS, 30 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011866

PUBLICATION DATE: SEP 84

TITLE: TECHNOLOGY ASSESSMENT OF WETLANDS FOR MUNICIPAL WASTEWATER TREATMENT.

PERSONAL AUTHOR: HYDE, H. C.; AND OTHERS

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ECONOMICS; *FEASIBILITY; *LAND USE; *TECHNOLOGY; *WETLANDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 111P. PRICE CODE: PC A06/MF A01. ORDER NO.: PB85-106896

ABSTRACT: THE INNOVATIVE AND ALTERNATIVE TECHNOLOGY PROVISIONS OF THE CLEAN WATER ACT OF 1977 (PL 95-217) PROVIDE FINANCIAL INCENTIVES TO COMMUNITIES THAT USE WASTEWATER TREATMENT ALTERNATIVES TO REDUCE COSTS OR ENERGY CONSUMPTION OVER CONVENTIONAL SYSTEMS. SOME OF THESE TECHNOLOGIES HAVE BEEN ONLY RECENTLY DEVELOPED AND ARE NOT IN WIDESPREAD USE IN THE UNITED STATES. IN AN EFFORT TO INCREASE AWARENESS OF THE POTENTIAL BENEFITS OF SUCH ALTERNATIVES AND TO ENCOURAGE THEIR IMPLEMENTATION WHERE APPLICABLE, THE MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY HAS INITIATED THIS SERIES OF EMERGING TECHNOLOGY ASSESSMENT REPORTS. THIS DOCUMENT DISCUSSES THE APPLICABILITY AND TECHNICAL AND ECONOMIC FEASIBILITY OF USING NATURAL AND ARTIFICIAL WETLAND SYSTEMS FOR MUNICIPAL WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011867

PUBLICATION DATE: JUL 83

TITLE: PRINCIPLES OF OCCUPATIONAL SAFETY AND HEALTH ENGINEERING. INSTRUCTOR'S GUIDE.

PERSONAL AUTHOR: ZIMMERMAN, N. J.

DESCRIPTOR: *HEALTH; *HEALTH ENGINEERING; *INSTRUCTIONAL MATERIALS; *GUIDES; *OCCUPATIONAL SAFETY; *POSTSECONDARY EDUCATION; *SAFETY; *TEACHING GUIDES

DESCRIPTIVE NOTE: 260P. PROCE CODE: PC A12/MF A01. ORDER NO.: PB85-107654

ABSTRACT: AN INSTRUCTOR'S GUIDE OF COURSE MATERIALS ON PRINCIPLES OF OCCUPATIONAL SAFETY AND HEALTH IS REVIEWED. THE MATERIALS WERE PREPARED FOR A COURSE PRESENTED AT PURDUE UNIVERSITY AND CONSIST OF 12 UNITS OF INSTRUCTION. THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA) IS EXAMINED. OCCUPATIONAL SAFETY AND HEALTH LEGISLATION IN THE UNITED STATES IS LISTED CHRONOLOGICALLY FROM 1708 TO 1978. DUTIES AND STANDARDS OF THE OSHA ARE OUTLINED. AREAS OF STANDARDS DEVELOPMENT ARE IDENTIFIED AS ORIGINAL STANDARDS INCORPORATED INTO THE OSHA, EMERGENCY STANDARDS, AND PERMANENT STANDARDS. GUIDELINES ARE PRESENTED FOR THE CONDUCT OF INSPECTIONS, INCLUDING PRIORITIES, INSPECTION PROCEDURES, AND CITATIONS. OCCUPATIONAL EXPOSURE LIMITS ARE DISCUSSED. AREAS OF INFORMATION COVERED IN THIS GUIDE INCLUDE INDUSTRIAL TOXICOLOGY, DERMATITIS, RESPIRATORY PROTECTION, HEAT STRESS, VIBRATION, IONIZING RADIATION, NOISE, INDUSTRIAL VENTILATION, AND ERGONOMICS. THE AUTHOR CONCLUDES THAT THE INSTRUCTIONAL RESOURCE MATERIAL WILL BE PARTICULARLY USEFUL TO ENGINEERING EDUCATORS WHO ARE INSTRUCTING STUDENTS IN THE FIELD OF OCCUPATIONAL SAFETY AND HEALTH AND WHO ARE DEVELOPING AN AWARENESS OF HAZARDS AND METHODS TO PREVENT THEIR OCCURRENCE THROUGH ENGINEERING DESIGN AND PRACTICE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011868

PUBLICATION DATE: 74

TITLE: RECOGNITION OF OCCUPATIONAL HEALTH HAZARDS. COURSE MANUAL. VOLUME I.

DESCRIPTOR: *HEALTH HAZARDS; *INSTRUCTIONAL MATERIALS; *INDUSTRIAL HYGIENE; *OCCUPATIONAL HEALTH; *POSTSECONDARY EDUCATION; *SAFETY

DESCRIPTIVE NOTE: 537P. PRICE CODE: PC A23/MF A01. ORDER NO.: PB85-107662

ABSTRACT: THE NIOSH COURSE WAS DEVELOPED FOR USE THROUGH THE RECENTLY ESTABLISHED REGIONAL TRAINING PROGRAM (RTP) TO TRAIN PROFESSIONALS AND PARA-PROFESSIONALS WHO WILL BECOME INVOLVED IN THE RECOGNITION, EVALUATION, AND CONTROL OF OCCUPATIONAL HEALTH AND SAFETY HAZARDS. THE RTP WAS ESTABLISHED TO MULTIPLY THE EFFORTS OF NIOSH'S DIVISION OF TRAINING BY CONTRACTING WITH A CENTER FOR CONTINUING EDUCATION IN EACH GEOGRAPHICAL REGION OF THE UNITED STATES TO CONDUCT COURSES IN THAT REGION. THESE CENTERS WILL USE AS INSTRUCTORS TECHNICALLY COMPETENT PROFESSIONALS IN THE FIELD OF INDUSTRIAL HYGIENE. LEADERSHIP FOR THE INSTRUCTORS OF A SINGLE COURSE OR SERIES OF RELATED COURSES WILL BE PROVIDED BY AN OUTSTANDING INDUSTRIAL HYGIENIST WHO IS NOT ONLY A TECHNICAL EXPERT, BUT ALSO A SPECIALIST IN TRAINING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011869

PUBLICATION DATE: OCT 84

TITLE: DEFOAMERS. 1970 - SEPTEMBER, 1984 (CITATIONS FROM THE U.S. PATENT DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *DEFOAMERS; *FOAM INHIBITION; *INDUSTRY; *PATENTS

DESCRIPTIVE NOTE: 73P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877208

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS SELECTED PATENTS CONCERNING ANTIFOAM COMPOSITIONS AND PROCESSES FOR REDUCING FOAMING. FOAM INHIBITION AND DEPRESSION IN INDUSTRIAL MILIEU SUCH AS BOILER WATER, FERMENTATION, AND TEXTILE OPERATIONS ARE INCLUDED. BOTH AQUEOUS AND NON-AQUEOUS SYSTEMS ARE DISCUSSED. (CONTAINS 105 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011870

PUBLICATION DATE: OCT 84

TITLE: AQUATIC WEED CONTROL. DECEMBER, 1981 - SEPTEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOLOGICAL CONTROL METHODS; *AQUATIC WEEDS; *ENVIRONMENTAL EFFECTS; *HERBICIDES; *MECHANICAL CONTROL METHODS; *PROGRAM DESCRIPTIONS; *WEED CONTROL

DESCRIPTIVE NOTE: 116P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877398

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF HERBICIDES AND BIOLOGICAL METHODS IN THE MANAGEMENT OF NUISANCE AQUATIC WEEDS. DESCRIPTIONS OF PROGRAMS UNDERTAKEN IN VARIOUS REGIONS OF THE UNITED STATES ARE PRESENTED AS WELL AS SPECIFIC HERBICIDES AND BIOLOGICAL CONTROL METHODS. WATER HYACINTH, ALGAE, SEAGRASSES, EURASIAN WATERMILFOIL, AND HYDRILLA ARE AMONG THE AQUATIC PLANTS DISCUSSED. SOME ATTENTION IS GIVEN TO MECHANICAL CONTROL METHODS AND ENVIRONMENTAL EFFECTS OF VARIOUS PROGRAMS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 111 CITATIONS, 75 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011871

PUBLICATION DATE: OCT 84

TITLE: EUTROPHICATION. DECEMBER, 1981 - SEPTEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *EUTROPHICATION; *LAKES; *MODELS; *RESEARCH REPORTS; *RESERVOIRS

DESCRIPTIVE NOTE: 72P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877463

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING EUTROPHICATION PROCESSES AND EFFECTS IN LAKES, RESERVOIRS, AND OTHER SURFACE WATER BODIES. TOPICS INCLUDE NUTRIENT DYNAMICS, PLANKTON ABUNDANCE AND DISTRIBUTION, AND PRIMARY PRODUCTIVITY STUDIES. MATHEMATICAL MODELS OF EUTROPHICATION PROCESSES ARE DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 70 CITATIONS, 38 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011872

PUBLICATION DATE: 83

TITLE: ASBESTOS IN WATER SUPPLIES OF THE UNITED STATES.

PERSONAL AUTHOR: MILLETTE, J. R.; AND OTHERS

DESCRIPTOR: *ASBESTOS; *HEALTH; *PUBLIC HEALTH; *POLLUTION CONTROL; *WATER SUPPLY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 5P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB85-108686

ABSTRACT: THE REVIEW OF AVAILABLE DATA ON THE CONCENTRATIONS OF ASBESTOS IN U.S. WATER SUPPLIES SUGGESTS THAT THE MAJORITY OF WATER CONSUMERS ARE NOT EXPOSED TO ASBESTOS CONCENTRATIONS OVER 1 MILLION FIBERS PER LITER. A FEW POPULATIONS, HOWEVER, MAY BE EXPOSED TO CONCENTRATIONS OVER 1 BILLION FIBERS PER LITER. EIGHT PERCENT OF THE 538 WATER SUPPLIES FOR WHICH WATERBORNE ASBESTOS DATA IS AVAILABLE HAVE CONCENTRATIONS OF FIBERS OVER 10 MILLION FIBERS PER LITER. THE VAST MAJORITY OF ASBESTOS FIBERS WHICH ARE FOUND IN U.S. WATER SUPPLIES ARE UNDER 5 MICROMETERS IN LENGTH.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011873

PUBLICATION DATE: DEC 84

TITLE: COMMON SENSE SAFETY FOR DEVICE TESTERS.

DESCRIPTOR: *ACCIDENT PREVENTION; *BACKFLOW PREVENTION; *EQUIPMENT; *MAINTENANCE; *SAFETY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 1, 6P.

ABSTRACT: THIS ARTICLE DESCRIBES SITUATIONS WHEN MAINTENANCE FOR BACKFLOW PREVENTION DEVICES MAY REQUIRE SAFETY PRECAUTIONS.

AVAILABILITY: BACKFLOW PREVENTION; V1 N6

IRIS ACCESSION NUMBER: EW011874

PUBLICATION DATE: DEC 84

TITLE: IRRIGATION SYSTEMS NEED BACKFLOW PROTECTION.

PERSONAL AUTHOR: ASAY, STUART

DESCRIPTOR: *BACKFLOW PREVENTION; *EQUIPMENT; *IRRIGATION; *IRRIGATION SYSTEMS; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 3-5P.

ABSTRACT: THIS ARTICLE DESCRIBES BACKFLOW PREVENTION DEVICES AND TECHNIQUES FOR USE IN IRRIGATION SYSTEMS.

AVAILABILITY: BACKFLOW PREVENTION; V1 N6

IRIS ACCESSION NUMBER: EW011885

PUBLICATION DATE: FEB 78

TITLE: CHARACTERIZATION OF REUSABLE MUNICIPAL WASTEWATER EFFLUENTS AND CONCENTRATION OF ORGANIC CONSTITUENTS.

PERSONAL AUTHOR: SMITH, JAMES K.; AND OTHERS

DESCRIPTOR: *ADVANCED WASTEWATER TREATMENT; *DRINKING WATER; *EFFLUENTS; *ORGANIC COMPOUNDS; *RECYCLING; *RESEARCH; *WASTEWATER TREATMENT; *WATER TREATMENT; *WATER REUSE; *WATER QUALITY

DESCRIPTIVE NOTE: 144P. PRICE: $9.64

ABSTRACT: THIS REPORT IS CONCERNED WITH THE CHARACTERIZATION OF REUSABLE MUNICIPAL WASTEWATER EFFLUENTS FROM COST-EFFECTIVE TREATMENT PROCESSES. PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS WERE USED TO DEFINE POTABLE WATER QUALITY. A REVERSE OSMOSIS CONCENTRATION TECHNIQUE WAS EVALUATED AND USED TO OBTAIN QUANTITIES OF ORGANIC RESIDUES IN THE EFFLUENTS FOR IDENTIFICATION AND TOXICITY TESTING IN OTHER ONGOING RESEARCH EFFORTS. PARAMETERS FOUND TO EXCEED DRINKING WATER REGULATIONS IN MOST OF THE TREATED EFFLUENTS INCLUDED NITROGEN, PHENOL, ODOR, CARBON CHLOROFORM EXTRACT, TURBIDITY, AND SPECIFIC HEAVY METALS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS [illegible]H 43212

IRIS ACCESSION NUMBER: EW011886

PUBLICATION DATE: FEB 84

TITLE: GUIDANCE MANUAL FOR ELECTROPLATING AND METAL FINISHING PRETREATMENT STANDARDS.

DESCRIPTOR: *COMPLIANCE; *ELECTROPLATING; *INDUSTRY; *METALS; *METAL FINISHING; *MONITORING; *PRETREATMENT STANDARDS; *POLLUTION CONTROL; *REPORTING; *REGULATIONS; *STANDARDS; *TECHNOLOGY

DESCRIPTIVE NOTE: 73P. PRICE: $5.38

ABSTRACT: THIS MANUAL PROVIDES INFORMATION TO ASSIST CONTROL AUTHORITIES AND APPROVAL AUTHORITIES IN IMPLEMENTING THE NATIONAL CATEGORICAL PRETREATMENT STANDARDS FOR THE ELECTROPLATING AND METAL FINISHING POINT SOURCE CATEGORIES. IT IS DESIGNED TO SUPPLEMENT THE MORE DETAILED DOCUMENTS LISTED AS REFERENCES IN THE MANUAL; IT IS NOT DESIGNED TO REPLACE THEM. THE MANUAL ADDRESSES APPLICATION OF THE COMBINED WASTESTREAM FORMULA TO INTEGRATED FACILITIES WITH REGULATED AND UNREGULATED WASTESTREAMS. IT ALSO PROVIDES INFORMATION ON REMOVAL CREDITS AND THE STATUS OF THE FUNDAMENTALLY DIFFERENT FACTORS VARIANCE PROVISION IN LIGHT OF THE RECENT COURT DECISION. IT FURTHER EXPLAINS HOW FACILITIES SUBJECT TO THESE REGULATIONS MAY USE THE CERTIFICATION PROCEDURE TO MINIMIZE THEIR SAMPLING AND ANALYSIS FOR TOTAL TOXIC ORGANIC POLLUTANTS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011894

PUBLICATION DATE: 28 SEP

TITLE: STATUS OF CIVILIAN FEDERAL AGENCIES' EFFORTS TO ADDRESS HAZARDOUS WASTE PROBLEMS ON THEIR LANDS. REPORT BY THE COMPTROLLER GENERAL

DESCRIPTOR: *CLEANUP; DEPARTMENT OF ENERGY; DEPARTMENT OF INTERIOR; *FEDERAL AGENCIES; EPA; *HAZARDOUS WASTES; LAND USE; MONITORING; *PERFORMANCE EVALUATION; SITE IDENTIFICATION; *SUPERFUND; *WASTE DISPOSAL; *WASTE SITES

DESCRIPTIVE NOTE: 116P. FIRST FIVE COPIES FREE; ADDITIONAL COPIES $3.25.

ABSTRACT: THIS IS A REPORT BY THE U.S. GENERAL ACCOUNTING OFFICE REGARDING THE STATUS OF CIVILIAN FEDERAL AGENCIES' EFFORTS TO ADDRESS HAZARDOUS WASTE PROBLEMS ON THEIR LANDS. FINDINGS AND RECOMMENDATIONS ARE INCLUDED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW011896

PUBLICATION DATE: FEB 84

TITLE: SLUDGE DEMETALIZATION BY THE UNION CARBIDE CORPORATION ELECTROCHEMICAL PROCESS.

PERSONAL AUTHOR: HAAS, OSCAR W.

DESCRIPTOR: *COSTS; *ELECTROCHEMICAL PROCESSES; *HEAVY METALS; *METALS; *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *SLUDGE; *SEWAGE SLUDGE; *TECHNOLOGY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 148P. PRICE: $8.40

ABSTRACT: THE PURPOSE OF THIS STUDY WAS TO INVESTIGATE AN ELECTRO-CHEMICAL PROCESS FOR THE REMOVAL OF HEAVY METALS FROM SEWAGE SLUDGE WITHOUT PRIOR DEWATERING. A LABORATORY SCALE APPARATUS WAS DESIGNED AND CONSTRUCTED FOR THE PROCESS TESTS AND A BENCH SCALE APPARATUS WAS MODIFIED AND USED FOR TESTS. WHILE METALS WERE REMOVED, PROJECTED TREATMENT COSTS WERE HIGHER THAN MOST METHODS OF SLUDGE DISPOSAL CURRENTLY IN USE. MORE IMPROVEMENTS IN THE PROCESS ARE NEEDED BEFORE IT CAN BE COMMERCIALLY SUCCESSFUL.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011907

PUBLICATION DATE: 84

TITLE: LET THE SEAS DO THE DISPOSAL.

PERSONAL AUTHOR: FRENCH, VICTOR

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *EFFLUENTS; *OCEAN OUTFALLS; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 22-24P.

ABSTRACT: MODERN METHODS MAKE WASTEWATER DISCHARGE THROUGH AN OCEAN OUTFALL A BETTER DISPOSAL OPTION THAN IT USED TO BE. VARIABLES TO CONSIDER FOR DESIGN AND SITE SELECTION ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N13

IRIS ACCESSION NUMBER: EW011908

PUBLICATION DATE: DEC 84

TITLE: THERMAL TREATMENT "ENERGIZES" SAN MATEO SLUDGE.

PERSONAL AUTHOR: CEBALT, FRED

DESCRIPTOR: *CALIFORNIA; *ENERGY; *ENERGY CONSERVATION; *HEAT RECOVERY; *OPERATIONS (WASTEWATER); *THERMAL TREATMENT; *SLUDGE; *WASTE HEAT RECOVERY; *WASTEWATER

TREATMENT

DESCRIPTIVE NOTE: 25-27P.

ABSTRACT: A FOUR-YEAR OPERATING EXPERIENCE WITH A THERMAL PROCESS INCORPORATING WASTE HEAT RECOVERY HAS DEMONSTRATED TO THE STAFF OF A SAN MATES, CALIFORNIA WASTEWATER TREATMENT PLANT THAT SLUDGE IS INDEED A VIABLE SOURCE OF USABLE ENERGY.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N13

IRIS ACCESSION NUMBER: EW011909

PUBLICATION DATE: DEC 84

TITLE: THE TRICK TO SELLING SLUDGE AS FERTILIZER.

PERSONAL AUTHOR: BOONE, TONY

DESCRIPTOR: *AGRICULTURE; *COSTS; *FERTILIZER; *ILLINOIS; *LAND APPLICATION; *RECYCLING; *SLUDGE; *SLUDGE DISPOSAL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 28-29P.

ABSTRACT: SOLVING A PUBLIC RELATIONS PROBLEM RELATED TO THE PUBLIC'S PRECEPTION OF MUNICIPAL TREATMENT PLANT SLUDGE CLEARED THE WAY FOR THE START OF PROFITABLE LAND APPLICATION PROGRAMS. A PROGRAM IN ILLINOIS IS DISCUSSED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N13

IRIS ACCESSION NUMBER: EW011910

PUBLICATION DATE: DEC 84

TITLE: DRIER SLUDGE ENDS LANDFILL LEACHING CONCERNS.

PERSONAL AUTHOR: TAYLOR, MICHAEL

DESCRIPTOR: *EQUIPMENT; *FILTER PRESSES; *INDUSTRIAL WASTES; *LEACHING; *LANDFILLS; *MAINE; *SLUDGE DEWATERING; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 30-31P.

ABSTRACT: LEACHING PROBLEMS AT A MAINE LANDFILL WERE LARGELY RESOLVED WHEN A NEW BELT FILTER PRESS WENT INTO ACTION TO PRODUCE A MUCH DRIER SLUDGE AT THE LOCAL WASTEWATER TREATMENT FACILITY. THERE WERE IMPORTANT COST BENEFITS TOO.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N13

IRIS ACCESSION NUMBER: EW011911

PUBLICATION DATE: 83

TITLE: BASIC LANGUAGE PROGRAMS FOR URBAN STORMWATER MANAGEMENT PLANNING AND DESIGN. VOLUME II.

PERSONAL AUTHOR: GOLDING, BERNARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BASIC LANGUAGE; *COMPUTER SOFTWARE; *CULVERTS; *DESIGN; *HYDRAULICS; *MANAGEMENT; *PIPES; *PLANNING; *STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 114P. PRICES: BOOK AND LISTINGS, $50.00; DISKETTES, $50.00.

ABSTRACT: LIKE VOLUME I, ALL OF THE PROGRAMS ARE USER-FRIENDLY, FULLY INTERACTIVE AND ARE PRESENTED IN A CLEAR, EASY TO FOLLOW STEP-BY-STEP FORMAT. THE HYDRAULIC PROGRAMS IN THIS BOOK ENABLE THE RAPID COMPUTATION OF CRITICAL AND NORMAL DEPTHS AND THE HEAD LOSSES THROUGH BOTH OVAL (CONCRETE) AND ARCH (CMP) PIPE CULVERTS UNDER A VARIETY OF CONDITIONS. THE HYDROLOGIC PROGRAMS ENABLE ANALYTIC FREQUENCY ANALYSIS BY BOTH THE EXTREME VALUE-TYPE I(GUMBEL) AND THE LOG PEARSON TYPE III PROCEDURES. INCLUDED WITH EACH PROGRAM IS A DISCUSSION OF THE THEORY, DERIVED EQUATIONS, DETAILED STEP-BY-STEP USER INSTRUCTIONS AND SAMPLE PROBLEMS. ALL OF THESE PROGRAMS ARE COMPLETELY NEW AND HAVE NOT BEEN PREVIOUSLY PUBLISHED.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011912

PUBLICATION DATE: 84

TITLE: PUMPING STATION ANALYSIS. A BASIC LANGUAGE PROGRAM FOR ANALYZING STORM WATER PUMPING STATIONS.

PERSONAL AUTHOR: GOLDING, BERNARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BASIC; *COMPUTER SOFTWARE; *MANAGEMENT; *MONITORING; *PUMPS; *PUMPING STATIONS; *STORMWATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 48P. PRICES: BOOK AND LISTINGS, $25.00; DISKETTES, $25.00.

ABSTRACT: THIS PROGRAM FOR ANALYSIS OF STORM WATER PUMPING STATIONS, KEEPS A RUNNING ACCOUNT OF PUMPING STATION OPERATION WITH TIME. AT THE END OF EACH SELECTED TIME INTERVAL, THE INFLOW IN CFS TO THE STATION, THE WATER SURFACE ELEVATION IN THE STORAGE BASIN; THE STORAGE IN ACRE FEET IN THE STORAGE BASIN AND THE PUMP DISCHARGE IN CFS ARE LISTED. INPUTS TO THE PROGRAM ARE THE STORAGE IN THE BASIN AT SUCCESSIVELY HIGHER ELEVATIONS; THE PUMP ON AND OFF ELEVATIONS AND THE PUMP CAPACITIES IN GPM. INFLOW HYDROGRAPHS TO THE PUMPING INSTALLATION (STATION AND ADJACENT STORAGE BASIN) MAY BE INPUT TO THE COMPUTER

MANUALLY OR FROM DISK FILE. THE PROGRAM IS USER-FRIENDLY AND COMPLETELY INTERACTIVE. THE USER IS GIVEN STEP-BY-STEP INSTRUCTIONS AS TO NECESSARY INPUTS.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011913

PUBLICATION DATE: 83

TITLE: BASIC LANGUAGE PROGRAMS FOR URBAN STORMWATER MANAGEMENT PLANNING AND DESIGN. VOLUME I.

PERSONAL AUTHOR: GOLDING, BERNARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BASIC LANGUAGE; *COMPUTER SOFTWARE; *DESIGN; *HYDROLOGY; *HYDROGRAPHS; *MANAGEMENT; *PLANNING; *SURFACE RUNOFF; *STORMWATER; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 355P. PRICES: BOOK AND LISTINGS, $150.00; METRIC UNIT EDITION, $175.00; DISKETTES, $150.00.

ABSTRACT: THIS BOOK CONTAINS ALL OF THE COMPUTER PROGRAMS REQUIRED FOR THE PRELIMINARY ANALYSIS AND FINAL DESIGN OF STORM WATER MANAGEMENT SYSTEMS FOR MUNICIPALITIES AND DEVELOPMENTS; A TOTAL OF 28. ALL OF THE PROGRAMS WERE DEVELOPED, REFINED AND TESTED OVER A LONG PERIOD OF TIME AND HAVE BEEN USED FOR THE DESIGN OF MANY STORM WATER MANAGEMENT SYSTEMS UNDER A VARIETY OF CIRCUMSTANCES. THE EIGHT PROGRAMS IN HYDROLOGY ENABLE RAPID COMPUTATION OF HYDROGRAPHS FOR BOTH THE PREDEVELOPMENT AND POST-DEVELOPMENT CONDITION AND THE ROUTING OF THESE HYDROGRAPHS THROUGH RESERVOIR AND CHANNEL STORAGE. INCLUDED IN THIS BOOK ARE TWO MODELS FOR HYDROGRAPH COMPUTATION, THE HNV-SANTA BARBARA URBAN HYDROGRAPH METHOD AND THE DABRO MODEL (A UNIT HYDROGRAPH MODEL), BOTH OF WHICH MODELS HAVE BEEN SUCCESSFULLY USED TO SIMULATE HYDROGRAPHS FROM SMALL DRAINAGE BASINS USING GAUGED DATA WITH LITTLE OR NO CALIBRATION. THE 20 PROGRAMS IN HYDRAULICS ENABLE THE RAPID COMPUTATION OF DETENTION BASIN AND RESERVOIR RATING CURVES AND THE REQUIRED SIZES OF CONVEYANCE CHANNELS. PROGRAMS FOR COMPUTATION OF NORMAL AND CRITICAL DEPTHS IN TRAPEZOIDAL AND RECTANGULAR CHANNELS AND PIPES; FOR THE COMPUTATION OF WATER SURFACE PROFILES IN TRAPEZOIDAL, RECTANGULAR AND NATURAL RIVER CHANNELS AND FOR THE DETERMINATION OF HEAD LOSSES IN CULVERTS UNDER ALL FLOW CONDITIONS ARE INCLUDED.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011914

TITLE: BASIC LANGUAGE PROGRAMS FOR SANITARY SEWER SYSTEM ANALYSIS AND DESIGN.

PERSONAL AUTHOR: GOLDING, BERNARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BASIC LANGUAGE; *COMPUTER SOFTWARE; *DESIGN; *PLANNING; *PIPES; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: PRICE: BOOK AND LISTINGS, $85.00; DISKETTE, $100.00.

ABSTRACT: CONTAINED IN THIS BOOK ARE SIX BASIC LANGUAGE INTERACTIVE PROGRAMS FOR THE ANALYSIS AND DESIGN OF SANITARY SEWER SYSTEMS AND A SEVENTH PROGRAM (PIPE SYSTEM ANALYSIS) FOR THE COMPUTATION OF HEAD LOSS IN A FORCE MAIN. EACH PROGRAM INCLUDES A FULL EXPLANATION OF THE THEORY AND PROGRAM OPERATION, DETAILED STEP-BY-STEP USER INSTRUCTIONS AND SAMPLE PROBLEMS. THE THREE PROGRAMS FOR THE ANALYSIS OF EXISTING SANITARY SEWER SYSTEMS ARE LISTED AS FOLLOWS: (1) PART 1 - DATA INPUT FILES; (2) PART 2 - READ DATA FILES; AND (3) PART 3 - SYSTEMS ANALYSIS. THE THREE PROGRAMS FOR THE DESIGN OF NEW SANITARY SEWER SYSTEMS ARE LISTED AS FOLLOWS: (1) PART 1 - DATA INPUT FILES; (2) PART 2 - READ DATA; AND (3) PART 3 - SYSTEMS DESIGN.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011915

TITLE: DESIGN HYDROGRAPHS BY THE DRAINAGE BASIN RUNOFF MODEL (DABRO).

PERSONAL AUTHOR: GOLDING, BERNARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BASIC LANGUAGE; *COMPUTER SOFTWARE; *DABRO MODEL; *DESIGN; *HYDROGRAPHS; *FLOW MEASUREMENT; *MODELS; *RURAL AREAS; *SIMULATIONS; *SURFACE RUNOFF; *URBAN AREAS; *WATER SUPPLY

DESCRIPTIVE NOTE: PRICE: BOOK AND LISTINGS, $85.00; DISKETTE, $100.00.

ABSTRACT: THE MODEL PRESENTED IN THIS BOOK WILL COMPUTE A HYDROGRAPH OF RUNOFF (DESIGN HYDROGRAPH) FROM A BASIN BY COMPUTING THE HYDROGRAPHS OF RUNOFF OF THE VARIOUS SUBBASINS COMPRISING THE TOTAL DRAINAGE BASIN (BY THE APPLICATION OF RAINFALL-EXCESS TO THE UNIT HYDROGRAPH OF EACH SUBBASIN) AND THEN COMBINING AND/OR FLOOD ROUTING THE RESULTING SUBBASIN HYDROGRAPHS DOWN THE RIVER CHANNEL AND THROUGH RESERVOIRS TO GIVE THE TOTAL HYDROGRAPH OF RUNOFF FROM THE BASIN. IT WILL THEN PLOT A GRAPH (TIME IN HOURS VS DISCHARGE IN CFS) OF THE FINAL TOTAL BASIN HYDROGRAPH. THE DABRO MODEL HAS BEEN USED TO SUCCESSFULLY SIMULATE RUNOFF FROM BOTH LARGE AND SMALL BASINS (BOTH RURAL AND URBAN) AND HAS BEEN USED IN THE PRELIMINARY AND FINAL DESIGN OF MANY WATER RESOURCES PROJECTS AND IN REAL TIME RESERVOIR REGULATION. THIS BOOK CONTAINS A FULL EXPLANATION OF BOTH THE MODEL AND PROGRAM OPERATION, DETAILED STEP-BY-STEP USER INSTRUCTIONS AND SAMPLE PROBLEMS.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011916

PUBLICATION DATE: 83

TITLE: SANTA BARBARA URBAN HYDROGRAPH METHOD UTILIZING RUNOFF CURVE NUMBERS.

DESCRIPTOR: *BASIC LANGUAGE; *COMPUTER SOFTWARE; *HYDROGRAPHS; *MANAGEMENT; *PLANNING; *SURFACE RUNOFF; *STORMWATER; *URBAN AREAS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 43P. PRICE: BOOK AND LISTINGS, $35.00; DISKETTE, $25.00.

ABSTRACT: IN THIS PROGRAM, RAINFALL-EXCESS INCREMENTS ARE COMPUTED BY A MODIFICATION OF THE STANDARD SOIL CONSERVATION SERVICE RAINFALL-RUNOFF EQUATION. IN THIS MODIFICATION RUNOFF IS ASSUMED TO COME FROM THREE SOURCES: FROM THE URBAN DIRECTLY CONNECTED IMPERVIOUS AREA, FROM THE URBAN PERVIOUS (GRASSED) AND NON-DIRECTLY CONNECTED IMPERVIOUS AREAS, AND FROM THE RURAL AREAS. THE SUMMED RAINFALL-EXCESS INCREMENTS ARE THEN ROUTED THROUGH AN IMAGINARY LINEAR RESERVOIR WITH A TIME DELAY EQUAL TO THE TIME OF CONCENTRATION OF THE BASIN (SANTA BARBARA ROUTING). THE COMPUTED RUNOFF HYDROGRAPH IS THEN PLOTTED WHICH PLOT ROUTINE WILL WORK ON ANY DOT-MATRIX PRINTER. THE SEQUENTIAL RAINFALL INCREMENTS COMPRISING THE DESIGN STORM MAY BE STORED ON A DISK FILE (A SHORT PROGRAM TO STORE THESE INCREMENTS IS ALSO INCLUDED) OR PLACED IN THE MAIN PROGRAM AS DATA STATEMENTS. THE PROGRAMS ARE FULLY INTERACTIVE AND USER-FRIENDLY. FULL EXPLANATIONS, USER INSTRUCTIONS, SAMPLE PROBLEMS AND PROGRAM LISTINGS ARE INCLUDED.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011917

TITLE: SANTA BARBARA URBAN HYDROGRAPH METHOD UTILIZING RUNOFF CURVE NUMBERS. SINGLE OR MULTIPLE BASINS WITH FLOOD ROUTING.

DESCRIPTOR: *BASIC LANGUAGE; *COMPUTER SOFTWARE; *COMPUTATION; *FLOW MEASUREMENT; *HYDROGRAPHS; *SURFACE RUNOFF; *URBAN AREAS; *WATER

DESCRIPTIVE NOTE: PRICE: BOOK AND LISTINGS, $100.00; DISKETTE, $100.00.

ABSTRACT: IN ADDITION TO COMPUTING HYDROGRAPHS FROM A SINGLE BASIN, THE PROGRAMS IN THIS BOOK ENABLE RESERVOIR AND CHANNEL FLOOD ROUTING, HYDROGRAPH SUMMATION, PLOTTING, ETC. SUCH THAT A RUNOFF HYDROGRAPH FROM A COMPLEX BASIN CAN BE COMPUTED. HYDROGRAPHS OF RUNOFF FROM THE VARIOUS SUBBASINS CAN BE INDIVIDUALLY COMPUTED AND STORED ON DISK FILE FOR SUBSEQUENT OPERATIONS (PROGRAM NO. 1). A PROGRAM FOR THE SOLUTION OF COMPLEX BASINS WITH UP TO FIVE SUBBASINS IS ALSO INCLUDED (PROGRAM NO. 2).

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011918

TITLE: BASIC LANGUAGE PROGRAMS FOR STORM SEWER ANALYSIS AND DESIGN.

PERSONAL AUTHOR: GOLDING, BERNARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BASIC LANGUAGE; *COMPUTER SOFTWARE; *DESIGN; *PIPES; *SURFACE RUNOFF; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: PRICE: BOOK AND LISTINGS, $100.00; DISKETTE, $150.00

ABSTRACT: THIS BOOK CONTAINS EIGHT BASIC LANGUAGE INTERACTIVE PROGRAMS FOR THE ANALYSIS AND DESIGN OF STORM SEWER SYSTEMS BY THE RATIONAL METHOD. ALL OF THE PROGRAMS MAKE EXTENSIVE USE OF DISK FILES AND ARE EASY TO USE AND APPLY. EACH PROGRAM INCLUDES A FULL EXPLANATION OF THE THEORY AND PROGRAM OPERATION, DETAILED STEP-BY-STEP USER INSTRUCTIONS AND SAMPLE PROBLEMS. THE FIRST THREE PROGRAMS ARE FOR THE ANALYSIS OF EXISTING STORM SEWER SYSTEMS AND ARE LISTED AS FOLLOWS: (1) PART 1 - DATA INPUT FILES; (2) PART 2 - READ DATA FILES; AND (3) PART 3 - SYSTEMS ANALYSIS. THE SECOND THREE PROGRAMS ARE FOR THE DESIGN OF STORM SEWER SYSTEMS. THEY ARE LISTED AS FOLLOWS: (1) PART 1 - DATA INPUT FILES; (2) PART 2 - READ DATA FILES; AND (3) PART 3 - SUBSYSTEM DESIGN. A SEVENTH PROGRAM WILL STORE RAINFALL INTENSITY-DURATION DATA ON DISK FILES. AS AN ALTERNATIVE, AN EQUATION FOR RAINFALL INTENSITY-DURATION DATA MAY BE USED. AN EIGHTH PROGRAM WILL COMPUTE A HYDRAULIC GRADE LINE UP A STORM SEWER SYSTEM UNDER PRESSURE.

AVAILABILITY: HILBERN ENGINEERING SOFTWARE, 8982 ISLESWORTH COURT, BAY HILL, ORLANDO, FL 32819

IRIS ACCESSION NUMBER: EW011919

PUBLICATION DATE: 84

TITLE: HAZARD ASSESSMENT OF CHEMICALS: CURRENT DEVELOPMENTS.

PERSONAL AUTHOR: SAXENA, JITENDRA, ED.

DESCRIPTOR: CASE STUDIES; *CHEMICALS; FORMALDEHYDE; *HAZARD ASSESSMENTS; CHLORINATED ETHANES; *ENVIRONMENTAL EFFECTS; OZONE; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 488P. PRICE: $65.00

ABSTRACT: THIS SERIES PROVIDES MONOGRAPHS OF SIGNIFICANT DEVELOPMENTS IN THE AREA OF ENVIRONMENTAL AND HEALTH EFFECTS ASSESSMENT OF CHEMICALS. IN ADDITION, EACH VOLUME OF HAZARD ASSESSMENT OF CHEMICALS INCLUDES CASE STUDIES OF CHEMICALS/CHEMICAL CLASSES OR CHEMICAL SPILLS. WHILE PROVIDING COMPLETE ASSESSMENT OF THE CHEMICALS COVERED, SPECIFIC STUDIES ALSO OFFER EXAMPLES OF THE APPLICATION OF AVAILABLE METHODS AND APPROACHES TO ENVIRONMENTAL AND HEALTH HAZARD ASSESSMENT OF CHEMICALS. VOLUME 3 OF THE SERIES PRESENTS A COLLECTION OF SEVEN SUBJECT REVIEWS AND CASE STUDIES ON FORMALDEHYDE AND CHLORINATED ETHANES. SALIENT

SUBJECT REVIEWS ARE: HAZARD PRIORITY RANKING SYSTEMS FOR ENVIRONMENTAL CHEMICALS, ROLE OF MEDICAL EXAMINATIONS IN EVALUATING HAZARDOUS CHEMICAL EXPOSURE, METAL SPECIATION, EFFECT OF PARTICULATES ON THE TOXIC MANIFESTATIONS OF CHEMICALS, POTENTIAL IMPACT OF CONTAMINANTS ON STRATOSPHERIC OZONE, AND OTHERS. THE HEALTH EFFECTS OF FORMALDEHYDE WITH A DISCUSSION OF RELEVANT CHEMISTRY, SOURCES OF EXPOSURE, AND THE CURRENT REGULATORY STATUS IN THE U.S. AND ABROAD ARE REVIEWED. INFORMATION ON CHEMISTRY, PRODUCTION, USE, AND ENVIRONMENTAL AND BIOLOGICAL EFFECTS IS REVIEWED FOR CHLORINATED ETHANES.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011921

PUBLICATION DATE: 84

TITLE: CHEMICAL TOXICOLOGY AND CLINICAL CHEMISTRY OF METALS.

PERSONAL AUTHOR: BROWN, STANLEY S., ED.; SAVORY, JOHN, ED.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *CHEMICALS; *CHEMICAL TOXICOLOGY; *ENVIRONMENTAL EFFECTS; *METALS; *PUBLIC HEALTH; RESEARCH REPORTS; *TOXICOLOGY

DESCRIPTIVE NOTE: 432P. PRICE: $35.00

ABSTRACT: THIS BOOK CONTAINS THE FIFTEEN PLENARY LECTURES AND A SELECTION OF COMMUNICATIONS GIVEN AT THE SECOND INTERNATIONAL CONFERENCE OF CLINICAL CHEMISTRY AND CHEMICAL TOXICOLOGY. BRINGING TOGETHER THE VIEWS OF SCIENTISTS AND PHYSICIANS, THE VOLUME PRESENTS A BROAD UP-TO-DATE PRESPECTIVE ON THE SUBJECT. TOPICS COVERED RANGE FROM CLINICAL AND EPIDEMIOLOGICAL CASE HISTORIES TO STUDIES OF CELLULAR AND MOLECULAR MECHANISMS. THE BOOK IS DIVIDED INTO FOUR SECTIONS: QUALITY ASSURANCE AND METAL ANALYSIS, OCCUPATIONAL AND ENVIRONMENTAL EXPOSURES TO TOXIC METALS, SPECIATION AND INTERACTIONS, AND CLINICAL AND ANIMAL EXPERIMENTAL STUDIES OF TOXIC METALS. THE TOXICITIES OF LEAD, MERCURY, CADMIUM, AND NICKEL ARE DISCUSSED ALONG WITH THOSE OF LESSER KNOWN TOXIC METALS SUCH AS ALUMINUM, MANGANESE, SELENIUM, CHROMIUM, AND URANIUM.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011922

PUBLICATION DATE: JAN 80

TITLE: DAMAGES AND THREATS CAUSED BY HAZARDOUS MATERIAL SITES.

DESCRIPTOR: *DAMAGES; DRINKING WATER; *ENVIRONMENTAL EFFECTS; GROUND WATER; *HAZARDOUS MATERIALS; *HEALTH; *PUBLIC HEALTH; *SAFETY; *WASTE DISPOSAL; *WATER POLLUTION; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 268P. PRICE: $17.08

ABSTRACT: THIS DOCUMENT IS A PARTIAL COMPILATION OF DAMAGES AND THREATS FROM HAZARDOUS WASTE SITES IN THE UNITED STATES. IT WAS COMPILED FROM DATA AVAILABLE IN 1980. THE DAMAGES COVERED IN THE MORE THAN 350 SITE DESCRIPTIONS CONTAINED IN THIS REPORT INCLUDED GROUNDWATER CONTAMINATION, DRINKING WATER WELL CLOSURES, FISH KILLS, PROPERTY DAMAGE, KIDNEY DISORDERS, CANCER, AND DEATH. THE REPORT IS DIVIDED INTO TWO SECTIONS: (1) DETAILED DESCRIPTIONS OF 24 SITES AND (2) ABSTRACTS OF APPROXIMATELY 350 SITES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011923

PUBLICATION DATE: JAN 82

TITLE: IRRIGATION WITH MUNICIPAL EFFLUENT: A SOCIOECONOMIC STUDY OF COMMUNITY EXPERIENCES.

PERSONAL AUTHOR: CHRISTENSEN, LEE A

DESCRIPTOR: AGRICULTURE; *CASE STUDIES; ECONOMICS; *EFFLUENT; *IRRIGATION; *LAND APPLICATION; MANAGEMENT; PLANNING; PUBLIC PARTICIPATION; RECYCLING; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 53P.

ABSTRACT: THIS STUDY EXAMINES EXPERIENCES OF EIGHT COMMUNITIES USING LAND TO TREAT MUNICIPAL EFFLUENTS. MOST SYSTEMS EVOLVED WITHOUT LONG-RANGE PLANNING. NO DISTINCT METHODS FOR LAND ACQUISITION AND MANAGEMENT RELATED TO THE SIZE OF THE COMMUNITY WERE IDENTIFIED. FACTORS IDENTIFIED AS IMPORTANT FOR SUCCESSFUL SYSTEMS OPERATION INCLUDED A LONG PLANNING HORIZON AND GOOD WORKING RELATIONSHIPS BETWEEN COMMUNITY OFFICIALS AND LANDOWNERS. LEGAL CONTRACTS WERE OF SECONDARY IMPORTANCE. FARMERS DID NOT ADJUST THEIR FERTILIZATION RATES, ALTHOUGH THEY RECOGNIZED THE VALUE OF NUTRIENTS IN THE EFFLUENT.

AVAILABILITY: NATURAL RESOURCE ECONOMICS DIVISION, ECONOMIC RESEARCH SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, WASHINGTON, DC 20250

IRIS ACCESSION NUMBER: EW011924

PUBLICATION DATE: 84

TITLE: ASBESTIFORM FIBERS: NONOCCUPATIONAL HEALTH RISKS.

DESCRIPTOR: *ASBESTOS; *DISEASES; *FIBERS; *HEALTH; *PUBLIC HEALTH; *RESEARCH; *RISK ASSESSMENT; *POLLUTION CONTROL

DESCRIPTIVE NOTE: 351P. PRICE: $22.50

ABSTRACT: THIS STUDY WAS UNDERTAKEN TO REACH A BETTER

UNDERSTANDING OF THE RELATIONSHIP BETWEEN CHARACTERISTICS OF ASBESTIFORM FIBERS AND NONOCCUPATIONAL EXPOSURES. FINDINGS AND RECOMMENDATIONS ARE PRESENTED.

AVAILABILITY: NATIONAL ACADEMY PRESS, 2101 CONSTITUTION AVENUE, N.W., WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW011925

PUBLICATION DATE: MAY 84

TITLE: MANUAL OF ANALYTICAL METHODS FOR WASTEWATERS (OIL SHALE RETORT WATERS). SECOND EDITION.

PERSONAL AUTHOR: DAUGHTON, C. G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY PROCEDURES; *MANUALS; *OIL SHALE RETORT WATER; *OIL SHALE PROCESSING; *OIL; *WASTE DISPOSAL; *WASTE TREATMENT; *WASTEWATER

DESCRIPTIVE NOTE: 259P. PRICE CODE: PC A12/MF A01. ORDER NO.: DE84015967

ABSTRACT: THIS MANUAL OF METHODS WAS DEVELOPED FOR THE ROUTINE CHEMICAL ANALYSIS OF VARIOUS WATER-QUALITY CRITERIA. EACH METHOD IS SPECIFICALLY ADAPTED FOR APPLICATION TO THE HIGHLY COMPLEX SAMPLE MATRICES OF AQUEOUS WASTES THAT ARE GENERATED BY THE PYROLYTIC PRODUCTION OF SHALE OIL. THESE METHODS HAVE EVOLVED FROM SPECIFIC NEEDS OF THE LBL-SEEHRL OIL SHALE PROJECT FOR THE STUDY OF WASTE TREATMENT. DISCUSSIONS OF THEORY, LITERATURE REVIEW, METHODS COMPARISONS, VALIDATION AND PRECISION DATA, AND DETAILED OPERATOR PROTOCOLS ARE PRESENTED FOR EACH OF THE METHODS, INCLUDING: QUANTITATION OF ORGANIC AND INORGANIC CARBON, AMMONIA, ORGANIC NITROGEN, TOTAL NITROGEN, CHEMICAL OXYGEN DEMAND, AND MICROBIAL BIOMASS. METHODS ARE ALSO PRESENTED FOR SIMPLE AND RAPID FRACTIONATION OF ORGANIC CARBON (ALSO USED FOR QUANTIFYING OIL AND GREASE) AND FOR SEPARATING AMMONIA FROM ROUTINE STANDARD METHODOLOGIES THAT HAVE BEEN VALIDATED FOR OIL SHALE PROCESS WASTEWATERS, WHILE OTHERS ARE MODIFIED STANDARD METHODS OR TOTALLY NEW APPROACHES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011926

PUBLICATION DATE: NOV 84

TITLE: WASTEWATER TREATMENT: CHEMICAL INDUSTRY. 1970 - OCTOBER, 1984 (CITATIONS FROM POLLUTION ABSTRACTS).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CHEMICALS; *CHEMICAL INDUSTRY; *INDUSTRY; *OPERATIONS (WASTEWATER); *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 144P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877596

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING WASTEWATER TREATMENT IN THE CHEMICAL INDUSTRY RELATIVE TO A WIDE VARIETY OF INDUSTRIAL POLLUTANTS. BIOLOGICAL TREATMENTS INCLUDING CARBON ADDITIVES ARE DESCRIBED RELATIVE TO EFFECTIVENESS. THE REMOVAL OF MERCURY AND ITS COMPOUNDS ARE INCLUDED, AS WELL AS ASSOCIATED PROBLEMS AND RECOMMENDATIONS FROM FERTILIZER AND PESTICIDE POLLUTION. (THIS UPDATED BIBLIOGRAPHY CONTAINS 214 CITATIONS, 10 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011927

PUBLICATION DATE: NOV 84

TITLE: OIL SPILL REMOVAL TECHNIQUES AND EQUIPMENT. 1976 - NOVEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CLEANUP; *EQUIPMENT; *OIL SPILLS; *POLLUTION CONTROL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 166P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877828

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING METHODS AND EQUIPMENT USED FOR THE CONTAINMENT AND REMOVAL OF OIL AS A RESULT OF OIL SPILL MISHAPS. DISPERSANTS, SEPARATORS, SKIMMERS, AND ABSORBANTS ARE DISCUSSED. RELATED STUDIES REGARDING FILM SPREADING AND DISPERSION ARE PRESENTED. STUDIES PERTAINING TO SHIPBOARD BALLAST AND BILGEWATER CLEANING ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 180 CITATIONS, 44 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011928

PUBLICATION DATE: NOV 84

TITLE: ACID MINE DRAINAGE. 1977 - NOVEMBER, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *ACID MINE DRAINAGE; BIBLIOGRAPHIES; *ENVIRONMENTAL IMPACT; *HEAVY METALS; *INDUSTRY; *INDUSTRIAL WASTES; *MINING; *METALS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 246P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-878362

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE CONTROL AND TREATMENT OF ACID MINE DRAINAGE. TECHNIQUES DISCUSSED FOR TREATING WASTES WITH HEAVY METALS INCLUDE PRECIPITATION, CEMENTATION, ION EXCHANGE, CHARGED MEMBRANE, ULTRAFILTRATION, OZONATION, SOLVENT EXTRACTION, AND

ELECTRODIALYSIS. THE ENVIRONMENTAL IMPACT OF ACID MINE DRAINAGE ON RIVERS, STREAMS, AND LAKES IS ALSO INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 223 CITATIONS, 26 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011929

PUBLICATION DATE: NOV 84

TITLE: WATER HYACINTHS: WASTE TREATMENT AND METHANE PRODUCTION. 1979 - OCTOBER, 1984 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENERGY PRODUCTION; *ENERGY CONSERVATION; *HYACINTHS; *METHANE; *WASTE TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 114P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-878396

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE USE OF WATER HYACINTHS IN WASTE TREATMENT AND METHANE PRODUCTION. ANAEROBIC DIGESTION PROCESSES, WASTE PROCESSING, AND DIGESTION CONDITIONS ARE DISCUSSED. WATER HYACINTH WASTEWATER TREATMENT AND WATER QUALITY CONTROL ARE INCLUDED. ENERGY FARMING AND CROPPING THROUGH AQUATIC BIOMASS, FORESTRY, AND AGRICULTURAL PLANTS ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 124 CITATIONS, 38 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011930

PUBLICATION DATE: OCT 84

TITLE: CITY OF TAMPA MANAGEMENT ANALYSIS AND REPORT SYSTEM (MARS). VOLUME 1. CASE STUDY.

PERSONAL AUTHOR: TIPPIN, D. L.; AND OTHERS

DESCRIPTOR: *COMPUTER SOFTWARE; *COMPUTER APPLICATIONS; *MANAGEMENT; *MARS; *PROGRAM DESCRIPTIONS; *REPORTING; *UTILITIES; *WATER UTILITIES; *WASTEWATER UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 135P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB85-106177

ABSTRACT: THIS THREE-VOLUME REPORT DESCRIBES THE DEVELOPMENT AND IMPLEMENTATION OF A MANAGEMENT ANALYSIS AND REPORT SYSTEM (MARS) IN THE TAMPA, FLORIDA, WATER AND SANITARY SEWER DEPARTMENTS. ORIGINAL SYSTEM DEVELOPMENT WAS BASED ON RESEARCH CONDUCTED IN A SMALLER WATER UTILITY IN KENTON COUNTY, KENTUCKY. MARS WILL HELP BOTH THE WATER AND SANITARY SEWER DEPARTMENTS CONTROL COSTS AND MANAGE EXPANDING SERVICE REQUIREMENTS MORE EFFECTIVELY AND EFFICIENTLY. VOLUME I DOCUMENTS THE RESULTS OF 2 YEARS OF ACTIVITIES IN ADOPTING THE MARS TO A LARGE WATER UTILITY AND TO A WASTEWATER UTILITY; VOLUME II CONTAINS OPERATING INSTRUCTIONS FOR THE MARS PROGRAMS; AND VOLUME III, PRIMARILY A SYSTEM ANALYST'S/PROGRAMMER'S GUIDE, CONTAINS THE SOURCE CODE FOR ALL COMPUTER PROGRAMS IN TAMPA'S MARS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011931

PUBLICATION DATE: OCT 84

TITLE: CITY OF TAMPA MANAGEMENT ANALYSIS AND REPORT SYSTEM (MARS). VOLUME 2. OPERATIONS MANUAL.

PERSONAL AUTHOR: TIPPIN, D. L.; AND OTHERS

DESCRIPTOR: *COMPUTER SOFTWARE; *COMPUTER APPLICATIONS; *MANAGEMENT; *MARS; *MANUALS; *REPORTING; *UTILITIES; *WATER UTILITIES; *WASTEWATER UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 134P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB85-106185

ABSTRACT: THIS THREE-VOLUME REPORT DESCRIBES THE DEVELOPMENT AND IMPLEMENTATION OF A MANAGEMENT ANALYSIS AND REPORT SYSTEM (MARS) IN THE TAMPA, FLORIDA, WATER AND SANITARY SEWER DEPARTMENTS. ORIGINAL SYSTEM DEVELOPMENT WAS BASED ON RESEARCH CONDUCTED IN A SMALLER WATER UTILITY IN KENTON COUNTY, KENTUCKY. MARS WILL HELP BOTH THE WATER AND SANITARY SEWER DEPARTMENTS CONTROL COSTS AND MANAGE EXPANDING SERVICE REQUIREMENTS MORE EFFECTIVELY AND EFFICIENTLY. VOLUME II CONTAINS OPERATING INSTRUCTIONS FOR THE MARS PROGRAMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011932

PUBLICATION DATE: MAY 84

TITLE: URBAN EFFECTS ON WATER QUALITY AND QUANTITY: PROCEEDINGS OF CONFERENCE HELD AT URBANA, ILLINOIS ON OCTOBER 20 AND 21, 1983.

PERSONAL AUTHOR: BLAKE-COLEMAN, W.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *ENVIRONMENT EFFECTS; *LEGISLATION; *MODELS; *REGULATIONS; *SURFACE RUNOFF; *TECHNOLOGY; *URBAN AREAS; *URBAN EFFECTS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 371P. PRICE CODE: PC A16/MF A01. ORDER NO.: PB85-107035

ABSTRACT: THE CONFERENCE "URBAN EFFECTS ON WATER QUALITY AND QUANTITY" WAS HELD IN URBANA, ILLINOIS, ON OCTOBER 20 AND 21, 1983. THE PRIMARY TECHNICAL AREAS CONTAINED IN THE PROCEEDINGS ARE: NATIONWIDE URBAN RUNOFF PROGRAM-REGIONAL SUMMARIES; MODELING AND QUANTITY ISSUES; TECHNICAL AND LEGAL ASPECTS OF COMBINED SEWER OVERFLOWS AND THEIR REGULATION; AND URBAN EFFECTS ON STREAM AND LAKE SEDIMENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE; 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011933

PUBLICATION DATE: NOV 84

TITLE: TOXICITY OF TRANSITION METALS AND TRANSITION METAL COMPOUNDS. JUNE, 1970 - OCTOBER, 1984 (CITATIONS FROM THE ENGINEERING INDEX DAT

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENVIRONMENTAL EFFECTS; *HEALTH; *METALS; *PUBLIC HEALTH; *SAFETY; *TOXIC SUBSTANCES; *TRANSITION METALS

DESCRIPTIVE NOTE: 148P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-878461

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TOXICITY, HEALTH HAZARDS, AND INDUSTRIAL HYGIENE OF TRANSITION METALS AND THEIR COMPOUNDS. THE EFFECTS ON LIVING ORGANISMS, INCLUDING HUMANS, FISH AND OTHER MARINE LIFE, PLANTS, AND ANIMALS ARE DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 202 CITATIONS, 44 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011934

PUBLICATION DATE: NOV 84

TITLE: REMOTE SENSING APPLIED TO ENVIRONMENTAL POLLUTION DETECTION AND MANAGEMENT. 1970-NOVEMBER, 1984 (CITATIONS FROM THE NTIS DATA BASE

DESCRIPTOR: *AIR POLLUTION CONTROL; *ANNOTATED BIBLIOGRAPHIES; *COMPLIANCE; BIBLIOGRAPHIES; *DETECTION; *ENVIRONMENT; *MONITORING; *POLLUTION CONTROL; *REMOTE SENSING; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 211P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-877760

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF REMOTE SENSING TECHNIQUES AND EQUIPMENT TO STUDY AIR AND WATER POLLUTION PROBLEMS. TOPICS INCLUDE THE USE OF AERIAL PHOTOGRAPHS, VARIOUS RADAR TECHNIQUES, AND SPACEBORNE PHOTOGRAPHY TO STUDY OIL SPILLS, OCEAN DUMPING SITES, PLUME DISPERSIONS, AND POLLUTION PROBLEMS IN ESTUARIES. DATA INTERPRETATION AND PROCESSING TECHNIQUES ARE ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 236 CITATIONS, 13 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011935

PUBLICATION DATE: MAY 84

TITLE: TOXICS '95: OUTLOOK OF FACTORS AND TRENDS FOR TOXIC CHEMICALS.

PERSONAL AUTHOR: COATES, V. T.; AND OTHERS

DESCRIPTOR: *BUDGET; *CHEMICALS; *OFFICE OF TOXIC SUBSTANCES; *PLANNING; *POLICIES; *TOXIC SUBSTANCES; *TOXIC SUBSTANCES CONTROL; *TRENDS

DESCRIPTIVE NOTE: 233P. PRICE CODE: PC A11/MF A01. ORDER NO.: PB85-114114

ABSTRACT: THE OBJECTIVE OF THIS PROJECT IS TO ASSIST THE OFFICE OF TOXIC SUBSTANCES IN IDENTIFYING THE FACTORS AND TRENDS THAT WILL SHAPE THE NEXT DECADE OF TOXIC SUBSTANCES CONTROL AND THERE-BY SUPPORT OTS' LONG-TERM POLICY AND BUDGET PLANNING. THE CORE OF THIS DOCUMENT, CHAPTER 2, IS THREE HEURISTIC SCENARIOS OF THE CHEMICAL INDUSTRY IN 1995. ONE SCENARIO ENVISIONS THE RESULTS OF "RAPID EVOLUTION," ANOTHER THE RESULTS OF "MULTIDEMENSIONAL CHANGE," AND THE THIRD A STATE OF RELATIVE "STABILITY." THE AUTHORS HAVE GROUNDED THESE SCENARIOS IN THEIR IDEAS GENERATED FROM WIDE RANGING READING AND DISCUSSIONS DURING TWO TOXICS 95 WORKSHOPS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011936

PUBLICATION DATE: DEC 84

TITLE: CONSERVING ENERGY IN WATER SYSTEMS.

PERSONAL AUTHOR: DAFFER, ROBERT A., JR.

DESCRIPTOR: *DESIGN; *ENERGY; *ENERGY CONSERVATION; *MANAGEMENT; *OPERATIONS (WATER); *WATER DISTRIBUTION; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 34-37P.

ABSTRACT: ALTERNATIVE SOURCES OF ENERGY AND THE DESIGN OF ENERGY-EFFICIENT TREATMENT AND DISTRIBUTION SYSTEMS HELP CUT PUMPING COSTS. EXAMPLE OF ALTERNATIVE SOURCES AND IDEAS FOR SAVING POWER ARE DESCRIBED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N12

IRIS ACCESSION NUMBER: EW011937

PUBLICATION DATE: DEC 84

TITLE: THE APPLICATION AND EFFECTIVENESS OF SLOW SAND FILTRATION IN THE UNITED STATES.

PERSONAL AUTHOR: SLEZAK, LLOYD A.; SIMS, RONALD C.

DESCRIPTOR: *COSTS; *FILTRATION; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *SAND FILTRATION; *SURVEYS; *WATER TREATMENT

DESCRIPTIVE NOTE: 38-43P.

ABSTRACT: A SURVEY OF WATER TREATMENT PLANTS WITH SLOW-RATE SAND FILTRATION WAS CONDUCTED. THE OPERATIONS WERE ASSESSED FOR EFFICIENCY AND COST.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N12

IRIS ACCESSION NUMBER: EW011938

PUBLICATION DATE: DEC 84

TITLE: DECLINING-RATE FILTERS: REGULATORY ASPECTS AND OPERATING RESULTS.

PERSONAL AUTHOR: CRONWELL, DAVID A.; AND OTHERS

DESCRIPTOR: *DECLINING-RATE FILTERS; *DESIGN; *FILTRATION; *FILTERS; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *REGULATIONS; *WATER TREATMENT

DESCRIPTIVE NOTE: 55-61P.

ABSTRACT: ALTHOUGH THE CURRENT DESIGN TREND IS TO USE CONSTANT-RATE FILTERS, SIGNIFICANT OPERATING DATA NOW SHOW THAT USE OF DECLINING-RATE FILTERS INCLUDES SUCH BENEFITS AS ECONOMY AND EASE OF OPERATION. A SURVEY OF STATE REGULATIONS SHOWED THAT NO SPECIFIC REQUIREMENTS EXIST FOR THE DESIGN AND OPERATION OF DECLINING-RATE FILTERS AND THAT THE REGULATIONS OFTEN DO NOT DISTINGUISH BETWEEN THE TWO TYPES OF FILTERS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N12

IRIS ACCESSION NUMBER: EW011939

PUBLICATION DATE: DEC 84

TITLE: PILOT-PLANT STUDIES OF SLOW-RATE FILTRATION.

PERSONAL AUTHOR: FOX, KIM R.; AND OTHERS

DESCRIPTOR: BACTERIA; DISSOLVED OXYGEN; *FILTRATION; ORGANIC COMPOUNDS; *OPERATIONS (WATER); PARTICULATES; *PILOT PLANTS; *PERFORMANCE EVALUATION; *RESEARCH; *WATER TREATMENT; *SLOW-RATE FILTRATION

DESCRIPTIVE NOTE: 62-68P.

ABSTRACT: SLOW-RATE SAND OR GAC FILTRATION MAY BE APPROPRIATE, ESPECIALLY FOR SMALL WATER SYSTEMS. DESCRIBED ARE PILOT-PLANT STUDIES THAT WERE UNDERTAKEN TO EVALUATE SLOW-RATE FILTRATION. RESULTS OF THE STUDIES ARE REPORTED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N12

IRIS ACCESSION NUMBER: EW011940

PUBLICATION DATE: JAN 85

TITLE: "NO FRILLS" APPROACH SAVES NORTH CAROLINA $12 MILLION.

DESCRIPTOR: *CONSTRUCTION; *COST EFFECTIVENESS; *ECONOMICS; *COSTS; *EQUIPMENT; *FACILITIES; *MANAGEMENT; *PLANNING; *TOOLS; *UTILITIES; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 58-61, 98, 100P.

ABSTRACT: A VALUE DETERMINATION PROGRAM REDUCED THE COST OF WASTEWATER TREATMENT FACILITIES FOR MANY COMMUNITIES IN NORTH CAROLINA. FEATURES OF THE PROGRAM ARE DESCRIBED.

AVAILABILITY: PUBLIC WORKS; V116 N1

IRIS ACCESSION NUMBER: EW011941

PUBLICATION DATE: JAN 85

TITLE: NO REBATE: WATER UTILITY CASHES IN ON ENERGY CONSERVATION PROGRAM.

PERSONAL AUTHOR: NELSON, JOHN O.; REARDON, DAVID J.

DESCRIPTOR: *COSTS; *ENERGY; *ENERGY CONSERVATION; *ECONOMICS; HEATING; INSULATION; PUMPS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 69-72P.

ABSTRACT: WITH THE HELP OF A LOCAL UTILITY ENERGY CONSERVATION INCENTIVE PROGRAM, WATER PLANT MODIFICATIONS WILL HAVE A SIMPLE PAYBACK IN LESS THAN TWO YEARS. FEATURES OF THE PROGRAM ARE DESCRIBED.

AVAILABILITY. PUBLIC WORKS; V116 N1

IRIS ACCESSION NUMBER: EW011945

PUBLICATION DATE: DEC 84

TITLE: SAFE DRINKING WATER: THE IMPACT OF CHEMICALS ON A LIMITED RESOURCE.

PERSONAL AUTHOR: RICE, RIP G., ED.

DESCRIPTOR: *CHEMICALS; *DRINKING WATER; *ANALYTICAL TECHNIQUES; *DISINFECTION; *MONITORING; *REGULATIONS; *WATER TREATMENT; *WORLD PROBLEMS; *WATER QUALITY

DESCRIPTIVE NOTE: PRICE: $34.95

ABSTRACT: THIS BOOK ADDRESSES CHEMICAL CONTAMINATION, ONE OF THE MAJOR ISSUES CONFRONTING THE NATION'S CURRENT AND FUTURE WATER SUPPLY. THE BOOK IS ORGANIZED INTO FIVE MAIN SECTIONS: (1) NATIONAL AND INTERNATIONAL PERSPECTIVES; (2) SOURCES AND DISTRIBUTION OF SAFE DRINKING WATER; (3) CHEMICALS IN DRINKING WATER; (4) MONITORING AND ANALYSIS; AND (5) REGULATORY ASPECTS.

AVAILABILITY: DRINKING WATER RESEARCH FOUNDATION, 113 N. HENRY STREET, ALEXANDRIA, VA 22314

IRIS ACCESSION NUMBER: EW011946

PUBLICATION DATE: 83

TITLE: A LOW-DOLLAR SLUDGE BLANKET FINDER.

PERSONAL AUTHOR: JACKSON, GAINES B.; CULBERTSON, J. DWIGHT

DESCRIPTOR: *CLARIFIERS; *DESIGN; *EQUIPMENT; *MONITORING; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE BLANKET; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 3P. ARTICLE APPEARED IN THE JOURNAL DRIP; V8 N3 FALL 1983.

ABSTRACT: THIS ARTICLE DESCRIBES THE CONSTRUCTION AND USE OF AN EXPENSIVE SLUDGE BLANKET FINDER.

AVAILABILITY: GAINES B. JACKSON, OKLAHOMA WATER UTILITY TRAINING CENTER, ROSE STATE COLLEGE, 6420 S.E. 15TH STREET, MIDWEST CITY, OK 73110

IRIS ACCESSION NUMBER: EW011952

PUBLICATION DATE: DEC 84

TITLE: WATER: RETHINKING MANAGEMENT IN AN AGE OF SCARCITY. WORLDWATCH PAPER 62.

PERSONAL AUTHOR: POSTEL, SANDRA

DESCRIPTOR: *AGRICULTURE; *CONSERVATION; INDUSTRY; *MANAGEMENT; *NATURAL RESOURCES; *POLICIES; WATER POLLUTION; *WATER QUALITY; *WATER; *WATER RESOURCES; *WORLD PROBLEMS; *WATER SUPPLY

DESCRIPTIVE NOTE: 65P. PRICE: $4.00

ABSTRACT: THIS DOCUMENT EXAMINES VARIOUS TOPICS AND ISSUES RELATED TO THE MANAGEMENT OF FRESHWATER SUPPLIES. MAJOR AREAS CONSIDERED INCLUDE: (1) THE WATER CYCLE AND RENEWABLE SUPPLIES, PROVIDING DATA ON DISTRIBUTION OF SUCH SUPPLIES BY CONTINENT AND AVERAGE ANNUAL PER CAPITA RUNOFF PRODUCED IN SELECTED COUNTRIES, WITH PROJECTIONS FOR THE YEAR 2000; (2) COMPETING USES FOR WATER, PROVIDING DATA ON WORLD WATER USE (TOTAL AND PER CAPITA) FOR 1940-80, GROWTH IN IRRIGATED AREAS (BY CONTINENT) FOR 1950-82, AND ESTIMATED WATER USE IN SELECTED COUNTRIES (TOTAL, PER CAPITA, AND SECTOR) FOR 1980; (3) THE ENVIRONMENTAL AND ECONOMIC CONSEQUENCES OF MISMANAGING WATER SUPPLIES, INDICATING THE STATUS OF EXCESSIVE WATER WITHDRAWALS IN SELECTED REGIONS; (4) THE AUGMENTING OF DEPENDABLE SUPPLIES, PROVIDING DATA ON RESERVOIR CAPACITY IN SELECTED COUNTRIES FOR 1970 WITH PROJECTIONS TO 1990 AND LISTING SELECTED MAJOR RIVER DIVERSION PROJECTS; (5) WATER CONSERVATION IN THE UNITED STATES AND FOREIGN COUNTRIES; AND (6) PRIORITIES FOR A NEW WATER ECONOMY. ONE SUGGESTION OFFERED IS THAT PLANNERS AND EDUCATORS DISPEL THE MYTH THAT WATER CONSERVATION IS EXCLUSIVELY A SHORT-TERM STRATEGY TO ALLEVIATE DROUGHTS AND OTHER IMMEDIATE CRISES.

AVAILABILITY: WORLDWATCH INSTITUTE, 1776 MASSACHUSETTS AVENUE, N.W., WASHINGTON, DC 20036

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ABBOTT, F. S.
EW 011 683

ADAMUS, P. R.
EW 011 771
EW 011 772

AIETA, E. MARCO
EW 011 724

ALESSI, CHARLES J.
EW 011 728

ANGELE, GUSTAVE J.
EW 011 632

ARASMITH, E. E.
EW 011 629

ASANO, TAKASHI
EW 011 596

ASANO, TAKASHI, ED.
EW 011 597

ASAY, STUART
EW 011 874

ATHAYDE, D. N.
EW 011 556
EW 011 557
EW 011 558
EW 011 568

AUERBACK, STANLEY I.
EW 011 681

BARDEN, DREW S.
EW 011 599

BARNEY, G. S., ED.
EW 011 855

BATCHELOR, B.
EW 011 702

BATTS, LEONARD R.
EW 011 824

BEHREND, JACK
EW 011 682

BELL, B. A.
EW 011 703

BENNETT, BARBARA
EW 011 583

BERKOWITZ, ROBERT L.
EW 011 798

BISWAS, H.
EW 011 703

BITTON, GABRIEL, ED.
EW 011 567

BLAKE-COLEMAN, W.
EW 011 932

BOOHER, DIANNA
EW 011 718

BOONE, TONY
EW 011 909

BOS, MARINUS G.
EW 011 795

BOWERS, ROBERT G.
EW 011 574

BRETON, THEODORE R.
EW 011 525

BRIGHOUSE, BARBARA A.
EW 011 844

BROWER, J. E.
EW 011 731

BROWN, STANLEY S., ED.
EW 011 921

BUCALO, JOHN P., JR.
EW 011 849

BULL, R. J.
EW 011 806

BURRIS, B. E.
EW 010 863

CANTER, L.
EW 011 804

CARPENTER, B. H.
EW 011 737

CASE, RICHARD L.
EW 011 738

CEBALT, FRED
EW 011 908

CHRISTENSEN, LEE A.
EW 011 923

CHRISTIAN, ROBERT R.
EW 011 825

CLARK, C. S.
EW 011 777

COATES, V. T.
EW 011 935

COGGER, C. G.
EW 011 585

COLE, LESLIE
EW 011 713

COLLINS, THOMAS J.
EW 011 727

CONRADY, JOHN R.
EW 011 828

COOPER, JAMES W.
EW 011 812

COREV, T. M.
EW 011 835

COSTELLO, JAMES J.
EW 011 823

COTRUVO, JOSEPH A.
EW 011 821

CRONWELL, DAVID A.
EW 011 938

CROSBY, R. M.
EW 011 734

CULBERTSON, J. DWIGHT
EW 011 946

D'ITRI, FRANK M., ED.
EW 011 676

DAFFER, ROBERT A., JR.
EW 011 936

DALEY, P. S.
EW 011 843

DAUGHTON, C. G.
EW 011 925

DAVIES, J. CLARENCE
EW 011 591

DENNIS/ISOM, EDS.
EW 011 562

DESSY, RAYMOND E.
EW 011 714

DOCTOR, RONALD D.
EW 011 576

DONIGIAN, A. S. JR.
EW 011 586

DUFOUR, A. P.
EW 011 776

ECKRICH, HELEN M.
EW 011 730

EDWARDS, A. M. C., ED.
EW 011 799

ESCHENROEDER, ALAN, ED.
EW 011 851

ETNIER, E. L., ED.
EW 011 801

FAWCETT, HOWARD E.
EW 011 813

FIRTH, BARRY K.
EW 011 704

FLEMING, W. L.
EW 011 554

FOX, KIM R.
EW 011 939

FRANCIS, CHESTER W.
EW 011 681

FRANCIS, J. D.
EW 011 735

FRANZBLAU, S. G.
EW 011 838

FRAYER, W. E.
EW 011 748

FREEDMAN, STUART C.
EW 011 720

FREEMAN, A. MYRICK, III
EW 011 136

FRENCH, VICTOR
EW 011 907

FRENCH, WILLIAM W.
EW 011 443

FUCHEL, K.
EW 011 731

GALKA, R. J.
EW 011 847

GENTY, YVES R.
EW 011 631

GERBA, CHARLES P.
EW 011 567

GOLDING, BERNARD L.
EW 011 911
EW 011 912
EW 011 913

BEST COPY AVAILABLE

EW 011 914
EW 011 915
EW 011 918

GOLLADAY, FREDRICK L.
EW 011 793

GOODMAN, ALVIN S.
EW 011 781

GOODWIN, J. K.
EW 011 773
EW 011 774

GORDON, WENDY
EW 011 850

GORISCH, JOHN
EW 011 687

GOVAERTS, KENNETH C.
EW 011 717

GRILLOT, THOMAS A.
EW 011 717

GRIMMER, GERNOT
EW 011 819

GRISWOLD, DAVID F.
EW 011 583

HAAS, OSCAR W.
EW 011 896

HALL, JACK R.
EW 011 526
EW 011 363

HARBAUGH, ARLEN W.
EW 011 789

HARDY, JUSTIN T.
EW 011 578

HAREMOES, P., ED.
EW 011 802

HARRISON, JOHN R.
EW 011 697

HERSCH, PAUL
EW 011 685

HILEMAN, FRED D.
EW 011 745

HILLEL, DANIEL, ED.
EW 011 112

HOOPER, JOHN D.
EW 011 754

HORNICK, S. B.
EW 011 837

HYDE, H. C.
EW 011 866
EW 011 807

JABER, H. M.
EW 011 775

JACKSON, GAINES B.
EW 011 946

JAMES, A.
EW 011 797

JAVANDEL, I.
EW 011 739

JAWORSKI, N. A.
EW 011 588

JENKINS, STEPHEN R.
EW 011 605
EW 011 759

JOHANSON, R. C.
EW 011 707

JOLLEY, R. L.
EW 011 864

JONES, R. ANNE
EW 011 604

JUFFER, H. D.
EW 011 809

JUNKINS, RANDY
EW 011 351

KAPLAN, EDWARD
EW 011 582

KARASEK, F. W.
EW 011 791

KEARNS, H. J. PATRICK
EW 011 826

KEITH, LAWRENCE H., ED.
EW 011 673

KEMP, ROGER L.
EW 011 689

KIRKLAND, J. J.
EW 011 415

KNOX, R. C.
EW 011 804

KROON, JOSEPH R.
EW 011 822

KRUEGER, RAYMOND F., ED.
EW 011 856

KRUTZSCH, WILLIAM C.
EW 011 442

KULIKOV, N. V.
EW 011 790

LANE/OTTEN, ED.
EW 011 559

LEE, G. FRED
EW 011 604

LEPRINCE, ANTOINE
EW 011 723

LEVER, W. F.
EW 011 769
EW 011 770

LEVINE, PAUL E.
EW 011 701

LIMBACH, EDWARD W.
EW 011 601

LIPPY, E. C.
EW 011 840

LYKOS, P.
EW 011 792

LYKOS, PETER
EW 011 811

LYLES, BARBARA D.
EW 011 574

MAGILL, F. D., JR.
EW 011 573

MALE, JAMES W.
EW 011 580

MARA, D. DUNCAN
EW 011 569

MATHEW, K.
EW 011 572

MCCARTY, PERRY L.
EW 011 724

MCDEVITT, M.
EW 011 702

MCDONALD, MICHAEL G.
EW 011 789

MCLAMARRAH, JANE A.
EW 011 729

MCMILLIN, CARL R.
EW 011 744

MCNAIR, HAROLD M.
EW 011 412
EW 011 413

MEANS, EDWARD G.
EW 011 722

MESSENGER, M. M.
EW 011 767

MILLAR, JOHN D.
EW 011 784

MILLER, DONALD S.
EW 011 844
EW 011 845

MILLER, JAMES W.
EW 011 598

MILLER, JOHN D.
EW 011 857

MILLETTE, J. R.
EW 011 872

MINEAR, ROGER A., ED.
EW 011 673

MONTEITH, T. J.
EW 011 761

MOORE, ELIZABETH RANDALL
EW 011 719

MORGAN, J. M.
EW 011 835

MORSE, ROBERT S.
EW 011 730

MOUNT, D. I.
EW 011 588

NAKAMURA, MOTOSHI
EW 011 716

NELSON, JOHN O.
EW 011 941

NEWSOME, D. H., ED.
EW 011 799

NICOLAI, BRUNO
EW 011 577

NRIAGU, JEROME O., ED.
EW 011 800

O'BRIEN, ROBERT P.
EW 011 827

BEST COPY AVAILABLE

OGAWA, HISASHI
EW 011 580

OGLE, DALE F.
EW 011 700

OKUN, DANIEL A.
EW 011 796

OLCOTT, JOHN Z.
EW 011 579

OLSON, R. J.
EW 011 742

PAGE, G. WILLIAM
EW 011 684

PAYNE, STEVEN N.
EW 011 525

PEARSON/FOSTER/BISHOP, EDS.
EW 011 561

PEDERSEN, TOM A.
EW 011 579

PETTYGROVE, G. STUART, ED.
EW 011 597

PIPES, WESLEY O.
EW 011 825

PIPITONE, DAVID A., ED.
EW 011 814

PONTIUS, FREDERICK W.
EW 011 721

POSTEL, SANDRA
EW 011 952

RAKNESS, KERWIN L.
EW 011 788

RAMALHO, R. S.
EW 011 592

REARDON, DAVID J.
EW 011 941

REEVES, PATRICK J.
EW 011 826

RICCARDI, R. M.
EW 011 843

RICE, RIP G., ED.
EW 011 945

RITTMANN, BRUCE E.
EW 011 725

ROBINSON, M.
EW 011 778

RODRICKS, JOSEPH V., ED.
EW 011 854

RUBIN, A. R.
EW 011 585

RUSLING, JAMES F.
EW 011 715

RUSSELL, JOHN D.
EW 011 603

RUZZO, WILLIAM P.
EW 011 750

RYAN, BEVERLY A.
EW 011 569

SADLER, BARRY, ED.
EW 011 710

SANDERS, MARIA
EW 011 759

SANTOLUCITO, JOHN A.
EW 011 852

SARGENT, T. N.
EW 011 842

SAVORY, JOHN, ED.
EW 011 921

SAXENA, JITENDRA, ED.
EW 011 919

SCHULZ, CHRISTOPHER R.
EW 011 796

SCHWEITZER, GLENN E., ED.
EW 011 852

SEARLE, CHARLES E., ED.
EW 011 853

SEIBER, JAMES N., ED.
EW 011 856

SHAFER, R.
EW 011 766

SHAVER, DEBORAH K.
EW 011 798

SHEEHAN, PATRICK J.
EW 011 803

SHEPPARD, STEPHEN M.
EW 011 581

SHUKLA, SHYAM S.
EW 011 715

SIMMONS, M. S., ED.
EW 011 800

SIMS, RONALD C.
EW 011 937

SLEZAK, LLOYD A.
EW 011 937

SMITH, JAMES K.
EW 011 885

SMITH, M. A.
EW 011 571

SNOEYINK, VERNON L.
EW 011 725

SNYDER, LLOYD R.
EW 011 414

SPRINGER, A. M.
EW 011 698

STACHA, JOHN H.
EW 011 721

STAUSS, JOHN F.
EW 011 729

STENZEL, MARK H.
EW 011 827

STEPP, RUSSELL J.
EW 011 599

STEVENS, A. A.
EW 011 805

STEWART, L. E.
EW 011 555

STONEROOK, H.
EW 011 699

SUTTON, GEORGE
EW 011 756

SWANN, ROBERT L., ED.
EW 011 851

SYMONS, J. M.
EW 011 805

TARDIFF, ROBERT G., ED.
EW 011 854

TAYLOR, MICHAEL
EW 011 910

THACKSTON, E. L.
EW 011 733

THORNTON, IAIN, ED.
EW 011 675

TIPPIN, D. L.
EW 011 930
EW 011 931

TIPPIN, DAVID L.
EW 011 760

TRAVIS, C. C., ED.
EW 011 801

TSALEV, D. L., ED.
EW 011 858
EW 011 859

VARMA, ASHA
EW 011 860
EW 011 861

VELZ, CLARENCE J.
EW 011 794

VOGT, CRAIG
EW 011 821

WALSKI, THOMAS
EW 011 686

WARNER, J. S.
EW 011 156

WESNER, G. M.
EW 010 863

WILKINS, C.
EW 011 792

WILMAN, ELIZABETH A.
EW 011 749

WINTER, FREDERIC J.
EW 011 700

WOODCOCK, JOHN J.
EW 011 602

WOODS, CHARLES E.
EW 011 600

YATES, A. P. J.
EW 011 847

ZAPOL'SKII, A. K.
EW 011 584

ZEH, THURBER G., JR.
EW 011 575

ZIMMERMAN, N. J.
EW 011 867

BEST COPY AVAILABLE

SUBJECT INDEX

*ABRASION (1) EW011847
*ACCIDENT MANAGEMENT (1) EW011798
*ACCIDENT PREVENTION (6) EW011448 EW011511 EW011813 EW011814 EW011843 EW011873
*ACID MINE DRAINAGE (1) EW011928
*ACID PRECIPITATION (1) EW011862
*ACID RAIN (1) EW011535
*ACTIVATED CARBON (2) EW011621 EW011808
*ACTIVATED SLUDGE (3) EW011351 EW011697 EW011734
ACTIVATED SLUDGE (1) EW011615
*ADMINISTRATION (3) EW011781 EW011799 EW011849
*ADVANCED WASTEWATER TREATMENT (1) EW011885
*AERATED FILTERS (1) EW011618
*AERATION (2) EW011619 EW011754
*AERATION TANKS (1) EW011758
*AESTHETICS (1) EW011579
*AESTHICS (1) EW011136
*AFRICA (1) EW011569
*AGRICULTURE (8) EW011107 EW011112 EW011571 EW011597 EW011676 EW011837 EW011909 EW011952
AGRICULTURE (1) EW011923
*AIR (1) EW011107
*AIR POLLUTION (2) EW011136 EW011851
*AIR POLLUTION CONTROL (2) EW011764 EW011934
*AIR STRIPPING (1) EW011827
*AIRVAC (1) EW011753
*ALGAE (1) EW011762
*ALKALINITY (1) EW011758
*ALTERNATIVE FUEL PRODUCTION (1) EW011560
*ALTERNATIVE TECHNOLOGIES (1) EW011607
*ALTERNATIVE TECHNOLOGY (10) EW011609 EW011610 EW011611 EW011625 EW011753 EW011805 EW011807 EW011866 EW011907 EW011929
*ALUMINUM (2) EW011773 EW011774
ALUMINUM (1) EW011823

*AMMONIA (1) EW011725

*ANALYSIS (1) EW011587

*ANALYTICAL CHEMISTRY (1) EW011791

*ANALYTICAL TECHNIQUES (41) EW011156 EW011363 EW011412 EW011413 EW011414 EW011415 EW011526
EW011561 EW011563 EW011595 EW011673 EW011700 EW011714 EW011716 EW011724
EW011744 EW011745 EW011746 EW011759 EW011764 EW011779 EW011780 EW011784
EW011791 EW011838 EW011839 EW011852 EW011853 EW011857 EW011858 EW011859
EW011860 EW011861 EW011911 EW011912 EW011913 EW011914 EW011915 EW011918
EW011925 EW011945

ANALYTICAL TECHNIQUES (1) EW011715

*ANIMALS (1) EW011590

*ANNOTATED BIBLIOGRAPHIES (28) EW011589 EW011593 EW011594 EW011595 EW011705 EW011706 EW011740
EW011741 EW011762 EW011763 EW011764 EW011765 EW011779 EW011780 EW011808
EW011836 EW011862 EW011863 EW011865 EW011869 EW011870 EW011871 EW011926
EW011927 EW011928 EW011929 EW011933 EW011934

*ANNUAL REPORTS (1) EW011535

*APPROPRIATE TECHNOLOGY (2) EW011608 EW011627

*AQUACULTURE (1) EW011611

*AQUACULTURE SYSTEMS (1) EW011807

*AQUATIC BIOLOGY (1) EW011562

*AQUATIC ECOSYSTEMS (1) EW011862

*AQUATIC ENVIRONMENTS (1) EW011790

*AQUATIC SAFETY (1) EW011561

*AQUATIC SYSTEMS (1) EW011775

*AQUATIC TOXICOLOGY (1) EW011561

*AQUATIC WEEDS (1) EW011870

*ARTIFICAL INTELLIGENCE (1) EW011714

*ASBESTOS (2) EW011872 EW011924

*ASPHALT (1) EW011778

*ASSEMBLY LANGUAGE (1) EW011812

*ASSESSMENT (4) EW011561 EW011735 EW011736 EW011738

*ASSESSMENT METHODS (2) EW011771 EW011772

*ATOMIC ABSORPTION ANALYSIS (3) EW011764 EW011860 EW011861

*ATOMIC ABSORPTION SPECTROMETRY (2) EW011858 EW011859

*ATTITUDES (1) EW011755

*ATTRIBUTION THEORY (1) EW011720

*AUDIOVISUAL AIDS	(10)	EW011141 EW011511 EW011577 EW011589 EW011629 EW011630 EW011682 EW011732 EW011785 EW011786
*AUSTRALIA	(2)	EW011571 EW011572
*BACKFLOW	(2)	EW011631 EW011632
*BACKFLOW PREVENTION	(4)	EW011631 EW011632 EW011873 EW011874
*BACTERIA	(3)	EW011571 EW011776 EW011825
BACTERIA	(1)	EW011939
*BACTERIAL INDICATORS	(1)	EW011776
*BARRIERS	(1)	EW011793
*BASIC	(1)	EW011912
*BASIC LANGUAGE	(7)	EW011911 EW011913 EW011914 EW011915 EW011916 EW011917 EW011918
*BATCH REACTORS	(1)	EW011615
*BEACH POLLUTION	(1)	EW011749
*BENEFIT-COST ASSESSMENT	(1)	EW011136
*BIBLIOGRAPHIES	(2)	EW011418 EW011741
BIBLIOGRAPHIES	(27)	EW011589 EW011593 EW011594 EW011595 EW011705 EW011706 EW011740 EW011762 EW011763 EW011764 EW011765 EW011779 EW011780 EW011808 EW011836 EW011862 EW011863 EW011865 EW011869 EW011870 EW011871 EW011926 EW011927 EW011928 EW011929 EW011933 EW011934
*BIOCHEMISTRY	(1)	EW011843
*BIODEGRADATION	(1)	EW011765
*BIOLOGICAL AERATED FILTERS	(1)	EW011618
*BIOLOGICAL CONTROL	(1)	EW011762
*BIOLOGICAL CONTROL METHODS	(1)	EW011870
*BIOLOGICAL EFFECTS	(1)	EW011566
*BIOLOGICALLY STABLE WATER	(1)	EW011725
*BIOLOGICAL OXYGEN DEMAND	(1)	EW011594
*BIOLOGY	(1)	EW011790
BIOLOGY	(1)	EW011797
*BOTANY	(1)	EW011562
*BOTTOM SAMPLING	(1)	EW011595
*BROMINE CHLORIDE	(1)	EW011575
*BUDGET	(1)	EW011935
*BUDGETING	(1)	EW009163

*BUILDINGS (1) EW011740
*CALCIUM (1) EW011605
CALCUIM CARBONATE (1) EW011823
*CALCULATIONS (2) EW011759 EW011845
*CALCULATOR PROGRAMS (1) EW011759
*CALCULATORS (1) EW011759
*CALIFORNIA (4) EW011198 EW011722 EW011724 EW011908
*CANADA (1) EW011710
*CANALS (1) EW011795
*CANCER (2) EW011747 EW011853
*CAPITAL COSTS (1) EW011599
*CARCINOGENS (4) EW011747 EW011778 EW011819 EW011853
CASE HISTORIES (3) EW011573 EW011699 EW011803
*CASE STUDIES (5) EW011112 EW011525 EW011749 EW011824 EW011923
CASE STUDIES (1) EW011919
*CERTIFICATION (1) EW011631
*CHANGE PROCESS (1) EW011710
*CHEMICAL ADDITIVES (1) EW011768
*CHEMICAL ANALYSIS (2) EW011714 EW011715
*CHEMICAL CONTAMINATES (1) EW011567
*CHEMICAL CONTROL (1) EW011762
*CHEMICAL INDICATORS (1) EW011724
*CHEMICAL INDUSTRY (1) EW011926
*CHEMICAL PRECIPITATION (1) EW011823
*CHEMICAL PROPERTIES (1) EW011590
*CHEMICAL REACTIONS (1) EW011806
*CHEMICAL RISKS (1) EW011854
*CHEMICALS (29) EW011201 EW011447 EW011584 EW011684 EW011731 EW011747 EW011768
EW011775 EW011798 EW011800 EW011803 EW011813 EW011814 EW011827 EW011835
EW011851 EW011852 EW011853 EW011854 EW011858 EW011859 EW011860 EW011861
EW011864 EW011919 EW011921 EW011926 EW011935 EW011945
CHEMICALS (2) EW011746 EW011766
*CHEMICAL STORAGE (2) EW011201 EW011814
*CHEMICAL TOXICOLOGY (1) EW011921

*CHEMISTRY	(9)	EW011412 EW011413 EW011414 EW011415 EW011714 EW011715 EW011792 EW011811 EW011843
CHEMISTRY	(1)	EW011797
*CHINA	(1)	EW011818
*CHLORINATED BENZENES	(1)	EW011590
CHLORINATED ETHANES	(1)	EW011919
*CHLORINATED HYDROCARBONS	(1)	EW011363
*CHLORINATION	(2)	EW011765 EW011864
*CHLORINE	(2)	EW011788 EW011806
*CHROMATOGRAPHY	(6)	EW011412 EW011413 EW011414 EW011415 EW011779 EW011780
CITIZEN PARTICIPATION	(2)	EW011785 EW011786
*CLARIFICATION	(1)	EW011617
*CLARIFIERS	(2)	EW011734 EW011946
*CLEANING	(2)	EW011688 EW011828
*CLEANUP	(4)	EW011604 EW011757 EW011894 EW011927
*COAGULANTS	(2)	EW011584 EW011723
*COAGULATION	(2)	EW011198 EW011596
*COAL TAR	(1)	EW011778
COASTAL AREAS	(1)	EW011749
*COASTAL ZONE MANAGEMENT	(1)	EW011749
*COLIFORMS	(2)	EW011825 EW011838
*COLOR	(1)	EW011759
*COLORADO	(2)	EW011631 EW011750
*COLUMN SELECTION	(1)	EW011413
*COMBINED PROCESSES	(1)	EW011697
*COMMUNICATION	(1)	E[illegible]1718
*COMMUNICATIONS	(1)	EW011760
*COMPETENCY BASED INSTRUCTION	(1)	EW011719
*COMPLIANCE	(3)	EW011665 EW011886 EW011934
*COMPOST	(2)	EW011612 EW011837
*COMPOSTING	(1)	EW011612
*COMPRESSIBLE FLOW	(1)	EW011845
*COMPUTATION	(2)	EW011715 EW011917

*COMPUTATIONAL ERRORS	(1)	EW011715
*COMPUTER ANALYSIS	(1)	EW011593
*COMPUTER APPLICATIONS	(13)	EW011586 EW011707 EW011717 EW011729 EW011752 EW011767 EW011789 EW011792 EW011811 EW011812 EW011835 EW011930 EW011931
COMPUTER APPLICATIONS	(1)	EW011593
*COMPUTER BASED INSTRUCTION	(1)	EW011717
*COMPUTER HOTLINES	(1)	EW011731
*COMPUTERIZED DATA	(1)	EW011742
*COMPUTER MODELS	(1)	EW011797
*COMPUTERS	(3)	EW011792 EW011811 EW011812
*COMPUTER SOFTWARE	(12)	EW011789 EW011812 EW011911 EW011912 EW011913 EW011914 EW011915 EW011916 EW011917 EW011918 EW011930 EW011931
*CONFERENCE PROCEEDINGS	(10)	EW011584 EW011676 EW011681 EW011710 EW011712 EW011799 EW011816 EW011817 EW011921 EW011932
*CONGRESSIONAL REPORTS	(2)	EW011347 EW011841
*CONSERVATION	(3)	EW010863 EW011733 EW011952
CONSERVATION EDUCATION	(1)	EW011591
*CONSTRUCTION	(7)	EW011606 EW011613 EW011624 EW011626 EW011627 EW011667 EW011940
*CONSULTING FIRMS	(1)	EW011708
*CONTAINMENT	(1)	EW011798
*CONTAMINANTS	(1)	EW011724
*CONTAMINATION	(6)	EW011525 EW011567 EW011684 EW011732 EW011825 EW011850
*CONTRACTING	(3)	EW009163 EW011576 EW011578
*CONTROL SYSTEMS	(1)	EW0 1752
*CONVERSION TABLES	(1)	EW011447
*COOLING WATER	(1)	EW011702
*CORPS OF ENGINEERS	(1)	EW011581
*CORROSION	(2)	EW011835 EW011847
*CORROSION PREVENTION	(1)	EW011835
*COST CONTROLS	(1)	EW011628
*COST EFFECTIVENESS	(1)	EW011940
*COST RECOVERY SYSTEMS	(1)	EW011663
*COSTS	(40)	EW011576 EW011580 EW011583 EW011598 EW011599 EW011607 EW011608 EW011609 EW011610 EW011611 EW011612 EW011613 EW011614 EW011615 EW011616 EW011618 EW011619 EW011623 EW011625 EW011627 EW011628 EW011649 EW011665

		EW011667 EW011676 EW011689 EW011697 EW011700 EW011702 EW011728 EW011735 EW011736 EW011738 EW011788 EW011828 EW011896 EW011909 EW011937 EW011940 EW011941
*COUNTERCURRENT AERATION	(1)	EW011619
*COURSE OUTLINES	(1)	EW011141
COVERS	(1)	EW011766
*CRITERIA	(1)	EW011588
*CROPS	(1)	EW011571
*CULVERTS	(1)	EW011911
*DABRO MODEL	(1)	EW011915
*DAMAGES	(1)	EW011922
*DATA ANALYSIS	(3)	EW011557 EW011588 EW011715
*DATABASES	(2)	EW011742 EW011767
*DATA PROCESSING	(1)	EW011811
*DECISION MAKING	(3)	EW011540 EW011710 EW011761
*DECLINING-RATE FILTERS	(1)	EW011938
*DEEP-WELL DISPOSAL	(1)	EW011863
*DEFOAMERS	(1)	EW011869
DEPARTMENT OF ENERGY	(1)	EW011894
DEPARTMENT OF INTERIOR	(1)	EW011894
*DESALINATION	(1)	EW011705
*DESIGN	(36)	EW011417 EW011442 EW011445 EW011554 EW011569 EW011585 EW011592 EW011597 EW011606 EW011609 EW011611 EW011613 EW011616 EW011623 EW011624 EW011626 EW011627 EW011628 EW011663 EW011676 EW011721 EW011750 EW011769 EW011770 EW011795 EW011796 EW011802 EW011822 EW011911 EW011913 EW011914 EW011915 EW011918 EW011936 EW011938 EW011946
DESIGN	(2)	EW011593 EW011797
*DETECTION	(1)	EW011934
*DETOXIFICATION	(1)	EW011604
*DEVELOPING COUNTRIES	(3)	EW011796 EW011816 EW011817
*DEVELOPMENT CHARGES	(1)	EW011599
*DIOXIN	(1)	EW011745
*DIRECTORIES	(1)	EW011742
*DISEASES	(2)	EW011675 EW011924
*DISINFECTION	(7)	EW011575 EW011788 EW011805 EW011806 EW011840 EW011864 EW011945

*DISPERSANTS	(1)	EW011683
*DISSOLVED OXYGEN	(1)	EW011753
DISSOLVED OXYGEN	(1)	EW011939
*DOMESTIC WATER	(3)	EW011735 EW011736 EW011738
*DRAINAGE	(1)	EW011750
*DRAINAGE SYSTEMS	(1)	EW011802
*DRAINS	(1)	EW011795
*DRINKING WATER	(14)	EW011198 EW011418 EW011525 EW011664 EW011725 EW011754 EW011768 EW011805 EW011806 EW011821 EW011827 EW011838 EW011895 EW011945
DRINKING WATER	(1)	EW011922
*ECOLOGY	(1)	EW011790
*ECONOMICS	(14)	EW009163 EW011112 EW011136 EW011570 EW011580 EW011600 EW011601 EW011749 EW011793 EW011807 EW011810 EW011866 EW011940 EW011941
ECONOMICS	(1)	EW011923
*ECOSYSTEMS	(2)	EW011790 EW011803
*EDUCATION	(1)	EW011581
*EDUCATIONAL RESOURCES	(1)	EW011589
*EFFICIENCY	(1)	EW011689
*EFFLUENT	(5)	EW011572 EW011579 EW011580 EW011596 EW011923
*EFFLUENT GUIDELINES	(1)	EW011810
*EFFLUENT LIMITATIONS	(3)	EW011588 EW011773 EW011774
*EFFLUENTS	(6)	EW011706 EW011758 EW011765 EW011804 EW011885 EW011907
*EGYPT	(1)	EW011701
*ELECTRICAL CONTROL PANELS	(1)	EW011630
*ELECTRICITY	(1)	EW011630
*ELECTROCHEMICAL PROCESSES	(1)	EW011896
*ELECTRODIALYSIS	(1)	EW011705
*ELECTROPLATING	(1)	EW011886
*ELEMENTAL ANALYSIS	(1)	EW011859
*EMERGENCY RESPONSE	(1)	EW011760
*EMPLOYEE EVALUATION	(2)	EW011685 EW011720
*EMPLOYEE INVOLVEMENT	(1)	EW011698
*EMPLOYEE MOTIVATION	(1)	EW011756

*EMPLOYMENT OPPORTUNITIES	(1)	EW011708
*ENERGY	(6)	EW011610 EW011625 EW011740 EW011908 EW011936 EW011941
*ENERGY CONSERVATION	(5)	EW011740 EW011908 EW011929 EW011936 EW011941
*ENERGY PRODUCTION	(1)	EW011929
*ENGINEERING	(6)	EW011570 EW011628 EW011769 EW011770 EW011802 EW011840
ENGINEERING DRAWINGS	(1)	EW011760
*ENGINEERING EDUCATION	(1)	EW011581
*ENTERIC PARASITES	(1)	EW011777
*ENVIRONMENT	(15)	EW011107 EW011136 EW011564 EW011566 EW011590 EW011591 EW011595 EW011675 EW011681 EW011710 EW011742 EW011801 EW011819 EW011853 EW011934
*ENVIRONMENTAL EDUCATION	(1)	EW011591
*ENVIRONMENTAL EFFECTS	(6)	EW011765 EW011870 EW011919 EW011921 EW011922 EW011933
*ENVIRONMENTAL HEALTH	(3)	EW011589 EW011858 EW011859
*ENVIRONMENTAL IMPACT	(3)	EW011706 EW011851 EW011928
*ENVIRONMENTAL IMPACTS	(5)	EW011535 EW011593 EW011749 EW011803 EW011862
*ENVIRONMENTAL PROBLEMS	(1)	EW010863
*ENVIRONMENTAL PROTECTION	(1)	EW009163
*ENVIRONMENTAL QUALITY	(2)	EW011799 EW011841
*ENVIRONMENTAL SCIENCES	(1)	EW011791
*ENVIRONMENT EFFECTS	(1)	EW011932
*EPA	(6)	EW011526 EW011625 EW011667 EW011672 EW011773 EW011774
EPA	(1)	EW011894
*EPA METHOD STUDIES	(3)	EW011744 EW011745 EW011784
*EPA METHOD STUDY	(2)	EW011363 EW011857
*EQUILIBRIUM	(1)	EW011775
*EQUIPMENT	(18)	EW011443 EW011444 EW011445 EW011446 EW011447 EW011448 EW011705 EW011712 EW011763 EW011788 EW011811 EW011826 EW011873 EW011874 EW011910 EW011927 EW011940 EW011946
EQUIPMENT	(1)	EW011746
*EQUIPMENT SELECTION	(1)	EW011442
*EROSION	(1)	EW011809
*ESTUARIES	(1)	EW011706
*EUROPE	(1)	EW011783
*EUTROPHICATION	(1)	EW011871

*EVALUATION	(8)	EW011156 EW011583 EW011649 EW011672 EW011685 EW011710 EW011719 EW011747
EVALUATION	(1)	EW011771
*FACILITIES	(27)	EW011347 EW011[illegible]17 EW011574 EW011576 EW011585 EW011587 EW011592 EW011594 EW011609 EW011611 EW011613 EW011615 EW011617 EW011621 EW011623 EW011624 EW011626 EW011627 EW011628 EW011665 EW011667 EW011672 EW011721 EW011807 EW011826 EW011842 EW011940
*FEASIBILITY	(1)	EW011866
*FEDERAL AGENCIES	(1)	EW011894
*FEDERAL HIGHWAY ADMINISTRATION	(1)	EW011772
*FEDERAL PROGRAMS	(2)	EW009163 EW011347
*FEDERAL ROLE	(3)	EW009163 EW011107 EW011801
*FERTILIZER	(2)	EW011837 EW011909
*FIBERS	(1)	EW011924
*FILMS	(1)	EW011732
*FILTER PRESSES	(1)	EW011910
*FILTERS	(6)	EW011198 EW011446 EW011618 EW011623 EW011697 EW011938
*FILTRATION	(8)	EW011198 EW011447 EW011596 EW011622 EW011725 EW011937 EW011938 EW011939
*FINANCES	(4)	EW011576 EW011613 EW011728 EW011781
FINANCES	(1)	EW011783
*FLOCCULANTS	(1)	EW011584
*FLOCCULATION	(1)	EW011596
*FLOODPLAINS	(1)	EW011809
*FLOODS	(1)	EW011757
*FLORIDA	(1)	EW011756
FLORIDA	(1)	EW011760
*FLOW MEASUREMENT	(7)	EW011564 EW011686 EW011739 EW011789 EW011795 EW011915 EW011917
*FLOW METERS	(1)	EW011444
*FLUID FLOW	(1)	EW011739
*FLUIDS	(1)	EW011795
*FLUMES	(1)	EW011444
*FLUORIDATION	(1)	EW011418
*FOAM INHIBITION	(1)	EW011869
*FOOD INDUSTRY	(1)	EW011763

*FOOD PROCESSING	(1)	EW011763
FORMALDEHYDE	(1)	EW011919
*FUELS	(1)	EW011560
*FUNDING	(2)	EW011625 EW011728
*GAS CHROMATOGRAPHY	(2)	EW011412 EW011413
*GAS FEEDERS	(1)	EW011445
*GAS FLOW	(1)	EW011845
*GEOCHEMISTRY	(1)	EW011675
*GLOSSARIES	(1)	EW011447
*GRANULAR ACTIVATED CARBON	(2)	EW011621 EW011827
*GREAT LAKES	(1)	EW011800
*GROUNDWATER	(10)	EW011525 EW011567 EW011572 EW011712 EW011739 EW011789 EW011801 EW011804 EW011838 EW011850
~~GROUND WATER~~ 2	~~(1)~~	~~EW011922~~ 2
GROUNDWATER	(2)	EW011771 EW011772
*GROUNDWATER RECHARGE	(1)	EW011572
*GROUT	(1)	EW011573
*GUIDELINES	(9)	EW011569 EW011585 EW011663 EW011665 EW011683 EW011773 EW011774 EW011810 EW011817
*GUIDES	(5)	EW011586 EW011781 EW011812 EW011813 EW011867
HABITATS	(2)	EW011771 EW011772
*HALOETHERS	(1)	EW011744
*HANDBOOKS	(5)	EW011417 EW011739 EW011761 EW011860 EW011861
*HANDLING	(2)	EW011575 EW011620
*HAZARD ASSESSMENTS	(1)	EW011919
*HAZARDOUS MATERIALS	(8)	EW011540 EW011731 EW011767 EW011798 EW011813 EW011814 EW011852 EW011922
*HAZARDOUS SUBSTANCES	(2)	EW011566 EW011800
*HAZARDOUS WASTES	(8)	EW011107 EW011201 EW011604 EW011681 EW011732 EW011813 EW011852 EW011894
*HEALTH	(13)	EW011567 EW011590 EW011675 EW011684 EW011747 EW011777 EW011853 EW011864 EW011867 EW011872 EW011922 EW011924 EW011933
*HEALTH EDUCATION	(1)	EW011511
*HEALTH EFFECTS	(3)	EW011735 EW011736 EW011738

*HEALTH ENGINEERING	(1)	EW011867
*HEALTH HAZARDS	(1)	EW011868
*HEALTH INFORMATION	(1)	EW011731
*HEAT	(2)	EW011740 EW011843
HEATING	(1)	EW011941
*HEAT RECOVERY	(1)	EW011908
*HEAVY METALS	(4)	EW011571 EW011684 EW011896 EW011928
*HERBICIDES	(2)	EW011762 EW011870
*HIGHER EDUCATION	(1)	EW011581
HIGHER EDUCATION	(1)	EW011591
*HIGHWAYS	(5)	EW011769 EW011770 EW011771 EW011772 EW011809
*HISTORY	(1)	EW011721
HISTORY	(1)	EW011783
*HOSPITALS	(1)	EW011632
*HUMAN ACTIVITIES	(1)	EW011593
*HUMAN RESOURCES DEVELOPMENT	(1)	EW011583
*HUMANS	(1)	EW011590
*HYACINTHS	(1)	EW011929
*HYDRAULICS	(4)	EW011445 EW011734 EW011822 EW011911
*HYDROCARBONS	(2)	EW011363 EW011819
*HYDROGRAPHS	(4)	EW011913 EW011915 EW011916 EW011917
*HYDROLOGY	(6)	EW011567 EW011386 EW011707 EW011801 EW011836 EW011913
HYDROLOGY	(1)	EW011797
*IBM SYSTEM 9000	(1)	EW011812
*ILLINOIS	(2)	EW011754 EW011909
ILLINOIS	(1)	EW011700
*INCENTIVES	(2)	EW011672 EW011793
INDEXES	(2)	EW011785 EW011786
*INDIANA	(1)	EW011730
*INDUSTRIAL COST RECOVERY	(2)	EW011347 EW011663
*INDUSTRIAL HYGIENE	(2)	EW011843 EW011868
*INDUSTRIAL WASTES	(13)	EW011347 EW011699 EW011704 EW011713 EW011737 EW011741 EW011765 EW011773 EW011774 EW011808 EW011842 EW011910 EW011928

*INDUSTRIES	(2)	EW011582 EW011810
*INDUSTRY	(12)	EW011347 EW011663 EW011699 EW011708 EW011737 EW011740 EW011741 EW011763 EW011869 EW011886 EW011926 EW011928
INDUSTRY	(3)	EW011704 EW011749 EW011952
*INFILTRATION	(5)	EW011573 EW011579 EW011649 EW011701 EW011726
*INFLOW	(3)	EW011573 EW011649 EW011726
*INFORMATION DISSEMINATION	(1)	EW011731
*INFORMATION SOURCES	(2)	EW011742 EW011798
*INNOVATIVE TECHNOLOGY	(2)	EW011625 EW011672
*INORGANIC CHEMICALS	(1)	EW011810
*INORGANIC COAGULANTS	(1)	EW011723
*INORGANIC COMPOUNDS	(1)	EW011560
*INSPECTION	(4)	EW011727 EW011757 EW011828 EW011847
*INSTALLATION	(1)	EW011847
*INSTRUCTION	(3)	EW011141 EW011[illegible]82 EW011717
*INSTRUCTIONAL MATERIALS	(34)	EW011141 EW011351 EW011412 EW011413 EW011414 EW0114[illegible] EW011415 EW011511 EW011559 EW011562 EW011563 EW011577 EW011592 EW011629 EW011630 EW011673 EW011675 EW0117[illegible] EW011781 EW011785 EW011786 EW011790 EW011791 EW011792 EW011794 EW011795 EW011797 EW011798 EW011811 EW011819 EW011844 EW011845 EW011867 EW011868
*INSTRUMENTATION	(7)	EW011559 EW011686 EW011687 EW011712 EW011811 EW011860 EW011861
INSULATION	(1)	EW011941
INSURANCE	(1)	EW011757
*INTERMITTENT SAND FILTERS	(1)	EW011623
*INTRACHANNEL CLARIFICATION	(1)	EW011617
*INVESTMENT	(1)	EW011576
*IRON	(1)	EW011754
IRON	(1)	EW011823
*IRON CHLORIDE	(1)	EW011723
*IRON INDUSTRY	(1)	EW011737
*IRON REMOVAL	(1)	EW011754
*IRRIGATION	(7)	EW011112 EW011555 EW011571 EW011597 EW011701 EW011874 EW011923
*IRRIGATION SYSTEMS	(1)	EW011874
*ISSUES	(2)	EW011567 EW011864
*JOB ANALYSIS	(1)	EW011141

*KENYA (1) EW011570
*KINETIC CONSTANTS (1) EW011775
*LABORATORIES (1) EW011201
*LABORATORY ACTIVITIES (1) EW011812
*LABORATORY APPLICATIONS (1) EW011812
*LABORATORY EQUIPMENT (5) EW011412 EW011413 EW011414 EW011415 EW011811
*LABORATORY PROCEDURES (25) EW011156 EW011363 EW011412 EW011413 EW011414 EW011415 EW011526 EW011559 EW011563 EW011673 EW011714 EW011716 EW011724 EW011744 EW011745 EW011746 EW011764 EW011779 EW011780 EW011784 EW011791 EW011857 EW011860 EW011861 EW011925
LABORATORY PROCEDURES (1) EW011700
*LABORATORY SAFETY (1) EW011814
*LAGOONS (2) EW011594 EW011609
*LAKES (3) EW011595 EW011762 EW011871
*LAND APPLICATION (10) EW011540 EW011554 EW011585 EW011597 EW011608 EW011614 EW011616 EW011837 EW011909 EW011923
*LANDFILLS (2) EW011766 EW011910
*LANDSCAPING (1) EW011579
*LAND TREATMENT (9) EW011554 EW011555 EW011585 EW011606 EW011608 EW011614 EW011616 EW011624 EW011676
*LAND USE (4) EW011107 EW011676 EW011865 EW011866
LAND USE (3) EW011771 EW011772 EW011894
*LATRINES (1) EW011569
*LEACHATES (1) EW011156
LEACHATES (1) EW011766
*LEACHING (1) EW011910
LEAD (1) EW011823
*LEGAL ASPECTS (3) EW011600 EW011676 EW011781
*LEGAL PROBLEMS (1) EW011801
*LEGISLATION (2) EW011347 EW011932
LEGISLATION (1) EW011783
*LIME (3) EW011605 EW011626 EW011702
*LIMNOLOGY (1) EW011836
*LINERS (1) EW011766
*LIQUID CHROMATOGRAPHY (4) EW011414 EW011415 EW011779 EW011780

*LOCAL GOVERNMENT (1) EW011689

*LOW-INCOME PEOPLE (1) EW011793

*MACROPHYTES (1) EW011562

*MAINE (1) EW011910

*MAINTENANCE (23) EW011443 EW011573 EW011574 EW011578 EW011604 EW011611 EW011614
EW011615 EW011623 EW011625 EW011627 EW011629 EW011649 EW011688 EW011726
EW011730 EW011760 EW011782 EW011826 EW011828 EW011842 EW011847 EW011873

MAINTENANCE (2) EW011622 EW011824

*MANAGEMENT (44) EW009163 EW011112 EW011201 EW011417 EW011540 EW011554 EW011562
EW011576 EW011579 EW011580 EW011582 EW011585 EW011587 EW011588 EW011663
EW011681 EW011685 EW011689 EW011698 EW011710 EW011720 EW011722 EW011730
EW011733 EW011749 EW011752 EW011755 EW011756 EW011758 EW011761 EW011781
EW011798 EW011799 EW011849 EW011854 EW011911 EW011912 EW011913 EW011916
EW011930 EW011931 EW011936 EW011940 EW011952

MANAGEMENT (2) EW011783 EW011923

*MANAGERS (1) EW011755

*MANGANESE (2) EW011605 EW011723

*MANHOLES (1) EW011573

*MANUALS (15) EW011563 EW011597 EW011629 EW011649 EW011707 EW011746 EW011750
EW011769 EW011770 EW011771 EW011772 EW011842 EW011843 EW011925 EW011931

*MANUFACTURERS (1) EW011708

MAPS (1) EW011824

*MARS (2) EW011930 EW011931

*MARYLAND (1) EW011726

*MASS SPECTROMETRY (1) EW011791

*MATERIAL HANDLING (1) EW011446

*MATERIALS HANDLING (1) EW011813

*MATHEMATICAL MODELS (2) EW011739 EW011836

*MEASUREMENT (4) EW011447 EW011559 EW011686 EW011687

*MEASUREMENT INSTRUMENTS (1) EW011755

*MECHANICAL AERATION (1) EW011754

*MECHANICAL CONTROL METHODS (1) EW011870

*MEMBRANE PROCESSING (1) EW011741

*METAL FINISHING (1) EW011886

*METAL INDUSTRY (1) EW011842

*METALS	(13)	EW011675 EW011699 EW011773 EW011774 EW011800 EW011842 EW011858 EW011860 EW011886 EW011896 EW011921 EW011928 EW011933
*METERS	(1)	EW011447
*METHANE	(2)	EW011610 EW011929
*METHODS	(1)	EW011763
*METHOD STUDIES	(4)	EW011744 EW011745 EW011784 EW011857
*METHOD STUDY	(2)	EW011363 EW011526
*METHOD-604	(1)	EW011526
*MEYERS-BRIGGS INDICATOR	(1)	EW011755
MICHIGAN	(1)	EW011824
*MICROBIOLOGY	(2)	EW011565 EW011567
MICROBIOLOGY	(1)	EW011825
*MICROCOMPUTERS	(3)	EW011447 EW011792 EW011812
*MICROFICHE	(1)	EW011760
*MIDDLE ATLANTIC STATES	(1)	EW011582
*MINING	(1)	EW011928
*MODELING	(4)	EW011703 EW011704 EW011781 EW011836
*MODELS	(15)	EW011572 EW011580 EW011593 EW011598 EW011599 EW011601 EW011602 EW011703 EW011789 EW011797 EW011851 EW011865 EW011871 EW011915 EW011932
*MONITORING	(26)	EW011351 EW011525 EW011535 EW011540 EW011561 EW011590 EW011604 EW011681 EW011687 EW011699 EW011700 EW011712 EW011722 EW011724 EW011730 EW011752 EW011759 EW011825 EW011838 EW011841 EW011855 EW011886 EW011912 EW011934 EW011945 EW011946
MONITORING	(2)	EW011766 EW011894
*MONITORING DATA	(1)	EW011556
*NAPAP	(1)	EW011535
*NATIONAL TOXICOLOGY PROGRAM	(1)	EW011747
*NATIONWIDE URBAN RUNOFF PROGRAM	(3)	EW011556 EW011557 EW011568
NATIONWIDE URBAN RUNOFF PROGRAM	(1)	EW011558
*NATURAL RESOURCES	(4)	EW011107 EW011711 EW011742 EW011952
*NCASI	(1)	EW011704
*NEEDS	(1)	EW011667
*NEEDS ANALYSIS	(1)	EW011849
*NEEDS ASSESSMENT	(2)	EW011583 EW011591
*NEEDS SURVEYS	(1)	EW011667

*NEW ENGLAND (1) EW011749
*NEW ENGLAND REGION (1) EW011582
*NEW YORK (1) EW011728
*NITRITES (1) EW011716
*NITROGEN (3) EW011572 EW011728 EW011758
*NITROSAMINES (1) EW011784
*NOISE (1) EW011843
*NONPOINT SOURCES (1) EW011761
*NORTH CAROLINA (1) EW011585
*OBJECTIVES (2) EW011583 EW011667
*OCCUPATIONAL HAZARDS (1) EW011777
*OCCUPATIONAL HEALTH (5) EW011589 EW011853 EW011858 EW011859 EW011868
*OCCUPATIONAL SAFETY (1) EW011867
*OCEAN DUMPING (1) EW011706
*OCEANOGRAPHY (1) EW011841
*OCEAN OUTFALLS (1) EW011907
*OCEAN POLLUTION (1) EW011841
*OCEANS (2) EW011706 EW011841
OCEANS (1) EW011749
*OFFICE OF TOXIC SUBSTANCES (1) EW011935
*OHIO (1) EW011699
*OIL (1) EW011925
*OIL INDUSTRY (1) EW011749
*OIL SHALE PROCESSING (1) EW011925
*OIL SHALE RETORT WATER (1) EW011925
*OIL SPILLS (3) EW011566 EW011683 EW011927
*ONLINE MONITORING (1) EW011700
*ONSITE TREATMENT (1) EW011623
*OPEN CHANNEL SYSTEMS (1) EW011795
*OPERATIONS (1) EW011763
*OPERATIONS (WASTEWATER) (48) EW011347 EW011351 EW011444 EW011554 EW011555 EW011575 EW011576
EW011577 EW011578 EW011584 EW011592 EW011597 EW011606 EW011608 EW011609
EW011610 EW011611 EW011612 EW011613 EW011614 EW011615 EW011617 EW011618
EW011619 EW011620 EW011621 EW011622 EW011623 EW011624 EW011625 EW011626

EW011627 EW011629 EW011663 EW011665 EW011672 EW011676 EW011697 EW011698
EW011699 EW011700 EW011701 EW011737 EW011758 EW011788 EW011908 EW011926
EW011946

*OPERATIONS (WATER) (19) EW011198 EW011417 EW011418 EW011444 EW011576 EW011584 EW011605
EW011629 EW011705 EW011721 EW011724 EW011725 EW011752 EW011754 EW011796
EW011936 EW011937 EW011938 EW011939

*ORGANIC CHEMICALS (2) EW011684 EW011806

*ORGANIC COMPOUNDS (17) EW011156 EW011363 EW011525 EW011560 EW011565 EW011621 EW011673
EW011775 EW011779 EW011780 EW011800 EW011827 EW011851 EW011853 EW011856
EW011857 EW011885

ORGANIC COMPOUNDS (1) EW011939

*ORGANIC SUBSTANCES (1) EW011725

*ORGANIZATIONAL PROBLEMS (1) EW011720

*ORGANIZATIONS (GROUPS) (1) EW011591

*OVERLAND FLOW (2) EW011606 EW011606

*OXIDATION (1) EW011754

OXIDATION DITCH PROCESS (1) EW011617

*OZONE (1) EW011788

OZONE (1) EW011919

*PAINTS (1) EW011778

*PAPER INDUSTRY (1) EW011704

*PARAMETERS (1) EW011724

*PARASITIC DISEASES (1) EW011777

*PARTICIPATIVE MANAGEMENT (1) EW011756

PARTICULATES (1) EW011939

*PASCAL (1) EW011812

*PATENTS (1) EW011869

*PCBS (1) EW011857

*PERFORMANCE EVALUATION (42) EW009163 EW011156 EW011442 EW011526 EW011583 EW011596 EW011605
EW011606 EW011607 EW011611 EW011614 EW011616 EW011618 EW011621 EW011622
EW011623 EW011625 EW011627 EW011672 EW011685 EW011697 EW011700 EW011701
EW011702 EW011705 EW011719 EW011720 EW011723 EW011724 EW011730 EW011734
EW011776 EW011788 EW011807 EW011808 EW011842 EW011849 EW011894 EW011896
EW011937 EW011938 EW011939

*PERSONAL CHARACTERISTICS (1) EW011755

*PERSONNEL (4) EW011685 EW011698 EW011755 EW011777

*PESTICIDES (3) EW011566 EW011856 EW011857

PESTICIDES (2) EW011785 EW011786

*PETROLEUM (1) EW011778

*PH (1) EW011758

*PHENOLS (1) EW011526

*PHYSICAL PROPERTIES (1) EW011775

*PILOT PLANTS (1) EW011939

*PILOT STUDIES (1) EW011617

*PIPE NETWORKS (1) EW011729

*PIPE PROTECTION (1) EW011847

*PIPES (10) EW011444 EW011688 EW011729 EW011778 EW011822 EW011845 EW011847 EW011911 EW011914 EW011918

*PLANNING (26) EW011136 EW011141 EW011417 EW011570 EW011583 EW011587 EW011597 EW011613 EW011626 EW011628 EW011663 EW011665 EW011657 EW011689 EW011710 EW011733 EW011750 EW011781 EW011799 EW0118[illegible]9 EW011911 EW011913 EW011914 EW011916 EW011935 EW011940

PLANNING (1) EW011923

*PLANT COLLECTION (1) EW011562

*PLANTS (2) EW011562 EW011675

*PLANT STARTUP (1) EW011351

*PLUMBING (1) EW011822

*POINT SOURCES (1) EW011761

*POLICIES (18) EW011107 EW011136 EW011554 EW011580 EW011582 EW011600 EW011601 EW011602 EW011603 EW011604 EW011684 EW011689 EW011733 EW011740 EW011850 EW011865 EW011935 EW011952

POLICIES (1) EW011783

*POLICY DEVELOPMENT (1) EW011710

POLICY FORMATION (1) EW011591

*POLLUTANTS (1) EW011803

*POLLUTION (6) EW011572 EW011739 EW011779 EW011780 EW011791 EW011843

POLLUTION (1) EW011797

*POLLUTION CONTROL (24) EW009163 EW011347 EW011535 EW011536 EW011557 EW011558 EW011568 EW011667 EW011681 EW011683 EW011712 EW011730 EW011749 EW011766 EW011799 EW011800 EW011850 EW011856 EW011863 EW011872 EW011886 EW011924 EW011927 EW011934

*POLYCYCLIC AROMATIC HYDROCARBONS (1) EW011819

*POLYMERIZED IRON CHLORIDE (1) EW011723

*PONDS (1) EW011595

*POSTPRECIPITATION (1) EW011823

*POSTSECONDARY EDUCATION	(31)	EW011141 EW011351 EW011412 EW011414 EW011415 EW011511 EW011539 EW011562 EW011563 EW011577 EW011581 EW011592 EW011629 EW011630 EW011673 EW011675 EW011732 EW011781 EW011790 EW011791 EW011793 EW011794 EW011795 EW011797 EW011798 EW011811 EW011819 EW011844 EW011845 EW011867 EW011868
POSTSECONDARY EDUCATION	(2)	EW011785 EW011786
*POWER PLANTS	(2)	EW011563 EW011740
*PRESSURE FILTERS	(1)	EW011446
*PRETREATMENT	(1)	EW011699
*PRETREATMENT STANDARDS	(1)	EW011886
*PREVENTIVE MAINTENANCE	(1)	EW011574
*PREVENTIVE MEDICINE	(1)	EW011853
*PRIMARY TREATMENT	(1)	EW011592
*PRIMING	(1)	EW011443
*PRIORITY POLLUTANTS	(2)	EW011699 EW011839
*PRIVATIZATION	(1)	EW011576
*PROBLEM DIAGNOSIS	(1)	EW011720
*PROCESS CONTROL	(1)	EW011351
*PROCESS DESCRIPTION	(1)	EW011614
*PROCESS DESCRIPTIONS	(8)	EW011351 EW011615 EW011616 EW011617 EW011618 EW011619 EW011621 EW011622
*PROCESS EVALUATION	(1)	EW011623
*PRODUCTIVITY	(3)	EW011685 EW011720 EW011756
*PROGRAM DESCRIPTIONS	(8)	EW011198 EW011574 EW011581 EW011591 EW011713 EW011756 EW011870 EW011930
*PROGRAM DEVELOPMENT	(1)	EW011710
*PROGRAM EVALUATION	(2)	EW009163 EW011347
*PROGRAM EVALUATIONS	(1)	EW011747
*PROJECT DESCRIPTIONS	(1)	EW011625
*PROJECT EVALUATION	(1)	EW011781
*PROJECTION SYSTEMS	(1)	EW011682
*PROPELLANTS	(1)	EW011798
*PUBLICATIONS	(1)	EW011539
*PUBLIC HEALTH	(22)	EW011136 EW011418 EW011590 EW011604 EW011681 EW011684 EW011732 EW011776 EW011778 EW011821 EW011840 EW011843 EW011851 EW011853 EW011854 EW011855 EW011863 EW011872 EW011921 EW011922 EW011924 EW011933

*PUBLIC PARTICIPATION	(2)	EW011710 EW011732
PUBLIC PARTICIPATION	(1)	EW011923
*PUBLIC UTILITIES	(1)	EW011777
*PUBLIC WORKS	(1)	EW011756
*PULP INDUSTRY	(2)	EW011704 EW011765
*PUMPING STATIONS	(3)	EW011769 EW011770 EW011912
*PUMPS	(7)	EW011442 EW011443 EW011444 EW011629 EW011752 EW011753 EW011912
PUMPS	(1)	EW011941
*QUESTIONNAIRES	(1)	EW011755
*RADIOACTIVE WASTES	(1)	EW011855
*RADIOACTIVITY	(1)	EW011675
*RADIONUCLIDES	(1)	EW011790
*RAINFALL	(1)	EW011802
*RAPID INFILTRATION	(2)	EW011624 EW011701
*RATES	(1)	EW011598
*RATE SETTING	(2)	EW011601 EW011603
*RATE-SETTING	(1)	EW011602
*RATE SETTING PROCESS	(1)	EW011600
*RCRA	(1)	EW011767
*REAGENTS	(1)	EW011564
*RECLAIMED WASTEWATER	(1)	EW011597
*RECLAIMED WATER	(1)	EW011571
*RECOMMENDATIONS	(12)	EW009163 EW011156 EW011604 EW011685 EW011717 EW011718 EW011757 EW011766 EW011768 EW011823 EW011837 EW011849
*RECORD KEEPING	(1)	EW011826
*RECORDKEEPING	(1)	EW011824
*RECORDS	(3)	EW011663 EW011824 EW011826
*RECOVERY	(1)	EW011740
*RECREATION	(1)	EW011776
RECREATION	(3)	EW011749 EW011771 EW011772
*RECYCLING	(7)	EW011582 EW011610 EW011612 EW011701 EW011702 EW011885 EW011909
RECYCLING	(1)	EW011923

*REFERENCE MATERIALS	(2)	EW011742 EW011798
*REFERENCES	(2)	EW011613 EW011768
*REGULATIONS	(19)	EW011107 EW011201 EW011417 EW011721 EW011733 EW011766 EW011767 EW011810 EW011813 EW011821 EW011825 EW011850 EW011854 EW011856 EW011863 EW011886 EW011932 EW011938 EW011945
*REHABILITATION	(4)	EW011573 EW011649 EW011726 EW011782
*REMOTE SENSING	(1)	EW011924
*REPORTING	(5)	EW011767 EW011798 EW011886 EW011930 EW011931
*REPORTS	(2)	EW011899 EW011839
*RESEARCH	(24)	EW011112 EW011525 EW011535 EW011571 EW0115[illegible]4 EW011608 EW011706 EW011723 EW011734 EW011735 EW011736 EW011737 EW011738 EW011741 EW011762 EW0117[illegible]0 EW011791 EW011799 EW011841 EW011855 EW011862 EW011865 EW011924 EW011935
RESEARCH	(1)	EW011783
*RESEARCH NEEDS	(3)	EW011525 EW011676 EW011747
*RESEARCH REPORTS	(6)	EW011777 EW011778 EW011827 EW011864 EW011871 EW011896
RESEARCH REPORTS	(2)	EW011762 EW011921
*RESEARCH REVIEW	(1)	EW011590
*RESEARCH REVIEWS	(2)	EW011535 EW011747
*RESERVOIRS	(2)	EW011722 EW011871
RESOURCE ALLOCATION	(1)	EW011591
*RESOURCE RECOVERY	(1)	EW011612
*RESOURCES RECOVERY	(1)	EW011740
*RETRENCHMENT	(1)	EW011689
*REVERSE OSMOSIS	(1)	EW011741
*REVIEWS	(1)	EW011704
*RISK ANALYSIS	(1)	EW011863
*RISK ASSESSMENT	(6)	EW011107 EW011540 EW011749 EW011851 EW011854 EW011924
*RISK MANAGEMENT	(1)	EW011854
*RIVER BASINS	(1)	EW011799
*RIVERS	(4)	EW011594 EW011595 EW011794 EW011799
*ROTATING BIOLOGICAL CONTACTORS	(1)	EW011626
*RURAL AREAS	(11)	EW011417 EW011607 EW011627 EW011665 EW011735 EW011736 EW011738 EW011816 EW011817 EW011818 EW011915
RURAL AREAS	(1)	EW011793

*SAFETY (18) EW011201 EW011448 EW011511 EW011561 EW011575 EW011713 EW011747 EW011777 EW011788 EW011813 EW011814 EW011843 EW011856 EW011867 EW011868 EW011873 EW011922 EW011933
SAFETY (1) EW011757
SAFETY EDUCATION (1) EW011713
*SAFETY INFORMATION (1) EW011731
*SALINITY (1) EW011565
SALVAGE (1) EW011757
*SAMPLING (7) EW011559 EW011564 EW011595 EW011712 EW011825 EW011840 EW011852
SAMPLING (1) EW011746
*SAND FILTRATION (1) EW011937
*SANITATION (4) EW011569 EW011570 EW011794 EW011816
*SCALE PREVENTION (1) EW011835
*SCALING (1) EW011835
*SCREENING (1) EW011561
*SCREENS (1) EW011682
*SCUBA (1) EW011828
*SCUBA DIVERS (1) EW011722
*SEALING (1) EW011726
*SEA WATER (1) EW011565
*SECONDARY CLARIFIERS (1) EW011734
*SECONDARY TREATMENT (1) EW011592
*SEDIMENTATION (1) EW011198
*SEPARATION TECHNIQUES (2) EW011779 EW011780
*SEPTIC TANKS (1) EW011804
*SERVICE (1) EW011598
*SERVICE CALLS (1) EW011760
*SERVICE CONTRACTS (2) EW011576 EW011578
*SEWAGE (3) EW011570 EW011706 EW011741
*SEWAGE SLUDGE (3) EW011608 EW011837 EW011896
*SEWER DISTRICTS (1) EW011728
*SEWER OVERFLOWS (1) EW011730
*SEWER RATES (2) EW011602 EW011603

*SEWERS (9) EW011649 EW011667 EW011728 EW011730 EW011750 EW011782 EW011795 EW011914 EW011918

*SEWER SYSTEMS (3) EW011607 EW011649 EW011726

*SILICA (1) EW011702

*SIMULATIONS (4) EW011586 EW011593 EW011707 EW011915

SITE IDENTIFICATION (1) EW011894

SKILL DEVELOPMENT (1) EW011591

*SLIDES (2) EW011511 EW011639

*SLOW-RATE FILTRATION (1) EW011939

*SLUDGE (11) EW011585 EW011608 EW011610 EW011612 EW011837 EW011896 EW011907 EW011908 EW011909 EW011910 EW011946

*SLUDGE BLANKET (1) EW011946

*SLUDGE DEWATERING (1) EW011910

*SLUDGE DISPOSAL (1) EW011909

*SMALL FLOWS (3) EW011607 EW011623 EW011627

*SOIL CONDITIONER (1) EW011837

*SOILS (3) EW011572 EW011675 EW011790

SOLIDS (1) EW011596

*SOLID WASTES (2) EW011156 EW011681

*SOLUTE TRANSPORT (1) EW011739

*SOURCES (1) EW011535

*SOUTH CAROLINA (1) EW011574

*SPECTROPHOTOMETRY (1) EW011716

*SPECTROSCOPY (1) EW011791

*STANDARDS (8) EW011418 EW011560 EW011564 EW011565 EW011773 EW0[illegible]774 EW011810 EW011866

*STATE AGENCIES (1) EW011708

*STATE PROGRAMS (1) EW011713

*STATE ROLE (3) EW009163 EW011733 EW011801

*STATISTICAL INFORMATION (1) EW011588

*STATISTICS (1) EW011715

*STEAM (1) EW011564

*STEEL INDUSTRY (1) EW011737

*STORAGE (1) EW011620

*STORAGE TANKS	(2)	EW011778 EW011828
*STORM RUNOFF	(1)	EW011750
*STORM SEWERS	(1)	EW011750
*STORM WATER	(2)	EW011769 EW011770
*STORMWATER	(9)	EW011556 EW011558 EW011568 EW011667 EW011809 EW011911 EW011912 EW011913 EW011916
*STREAM DESIGN FLOWS	(1)	EW011703
*STREAMFLOW	(1)	EW011580
*STREAMS	(3)	EW011762 EW011794 EW011795
*SUBSURFACE DISCHARGES	(1)	EW011844
*SUBSURFACE IRRIGATION	(1)	EW011555
*SUBSURFACE TREATMENT	(1)	EW011585
*SUPERFUND	(1)	EW011894
*SURFACE DISCHARGES	(1)	EW011844
*SURFACE RUNOFF	(16)	EW011556 EW011557 EW011558 EW011568 EW011769 EW011770 EW011802 EW011839 EW011911 EW011912 EW011913 EW011915 EW011916 EW011917 EW011918 EW011932
SURFACE RUNOFF	(1)	EW011757
*SURFACE WATER	(1)	EW011796
*SURROGATE PARAMETERS	(1)	EW011724
*SURVEYS	(7)	EW011649 EW011667 EW011697 EW011708 EW011748 EW011796 EW011937
*SUSPENDED SOLIDS	(1)	EW011700
*SYMPOSIA	(1)	EW011801
*SYNTHESIS	(1)	EW011584
*TASK ANALYSIS	(1)	EW011141
*TEACHING GUIDES	(1)	EW011867
*TECHNOLOGY	(21)	EW010863 EW011564 EW011566 EW011570 EW011587 EW011611 EW011614 EW011615 EW011618 EW011619 EW011625 EW011672 EW011712 EW011785 EW011799 EW011802 EW011807 EW011866 EW011886 EW011896 EW011932
TECHNOLOGY	(1)	EW011786
*TENNESSEE	(1)	EW011733
*TERTIARY GRANULAR FILTRATION	(1)	EW011622
*TERTIARY TREATMENT	(2)	EW011555 EW011592
*TESTING	(1)	EW011747
*THERMAL DISCHARGES	(1)	EW011844

*THERMAL POLLUTION (1) EW011844
*THERMAL TREATMENT (1) EW011908
*TOOLS (2) EW011448 EW011940
*TOXIC CHEMICALS (1) EW011684
*TOXIC MATERIALS (1) EW011813
*TOXICOLOGY (8) EW011561 EW011747 EW011791 EW011806 EW011843 EW011858 EW011859 EW011921
*TOXIC SUBSTANCES (13) EW011590 EW011684 EW011731 EW011732 EW011737 EW011747 EW011800 EW011806 EW011814 EW011853 EW011919 EW011933 EW011935
*TOXIC SUBSTANCES CONTROL (1) EW011935
*TRACE ELEMENTS (2) EW011858 EW011859
*TRACKER (1) EW011767
*TRAINING (16) EW011141 EW011412 EW011413 EW011414 EW011415 EW011577 EW011581 EW011583 EW011630 EW011631 EW011717 EW011719 EW011720 EW011816 EW011817 EW011849
TRAINING (3) EW011591 EW011713 EW011824
*TRAINING METHODS (1) EW011591
*TRAINING NEEDS (1) EW011591
*TRAINING OBJECTIVES (1) EW011713
TRAINING OBJECTIVES (1) EW011591
*TRAINING PROGRAMS (1) EW011583
*TRANSITION METALS (1) EW011933
*TRANSPORT (1) EW011620
*TRANSPORTATION (2) EW011713 EW011809
*TRENDS (8) EW010863 EW011107 EW011525 EW011582 EW011711 EW011721 EW011748 EW011935
TRENDS (1) EW011783
*TRICKLING FILTERS (1) EW011697
*TRIHALOMETHANES (1) EW011864
*TROUBLESHOOTING (6) EW011351 EW011620 EW011621 EW011622 EW011758 EW011842
*UNITED KINGDOM (1) EW011782
*UNITED STATES (2) EW011711 EW011721
*UNIT PROCESSES (2) EW011796 EW011842
*UNIVERSITIES (1) EW011708
*URBAN AREAS (13) EW011556 EW011557 EW011558 EW011568 EW011759 EW011802 EW011839

		EW011865 EW011911 EW011915 EW011916 EW011917 EW011932
*URBAN EFFECTS	(1)	EW011932
*U. S. ARMY	(1)	EW011766
*U.S. ARMY	(1)	EW011767
*USEPA	(13)	EW009163 EW011347 EW011363 EW011526 EW011663 EW011665 EW011667 EW011672 EW011744 EW011773 EW011774 EW011810 EW011821
*USER CHARGES	(1)	EW011347
*USER MANUALS	(1)	EW011707
*USSR	(1)	EW011584
*UTILITIES	(3)	EW011930 EW011931 EW011940
*VACUUM SYSTEMS	(1)	EW011753
*VALUE ENGINEERING	(1)	EW011628
*VALUES	(2)	EW011711 EW011749
*VALVES	(1)	EW011845
*VENT PIPES	(1)	EW011569
*VIDEO TAPES	(1)	EW011577
*VIDEOTAPES	(3)	EW011141 EW011511 EW011630
VIRUS	(1)	EW011596
*VIRUSES	(1)	EW011571
*VOCABULARY	(1)	EW011447
*WASTE DISPOSAL	(32)	EW011156 EW011201 EW011540 EW011566 EW011579 EW011585 EW011604 EW011608 EW011610 EW011612 EW011681 EW011706 EW011732 EW011766 EW011783 EW011793 EW011813 EW011814 EW011816 EW011837 EW011852 EW011855 EW011856 EW011863 EW011894 EW011896 EW011907 EW011909 EW011910 EW011922 EW011923 EW011925
WASTE DISPOSAL	(2)	EW011785 EW011786
*WASTE HEAT	(1)	EW011740
*WASTE HEAT RECOVERY	(1)	EW011908
*WASTELOAD ALLOCATIONS	(1)	EW011703
*WASTES	(2)	EW011779 EW011780
*WASTE SITES	(1)	EW011894
*WASTE TREATMENT	(10)	EW011704 EW011741 EW011763 EW011765 EW011808 EW011842 EW011855 EW011856 EW011925 EW011929
*WASTEWATER	(10)	EW011363 EW011554 EW011571 EW011588 EW011597 EW011706 EW011737 EW011744 EW011857 EW011925
WASTEWATER	(1)	EW011746

*WASTEWATER ANALYSIS	(1)	EW011746
*WASTEWATER COLLECTION	(26)	EW011556 EW011557 EW011558 EW011568 EW011573 EW011607 EW011649 EW011667 EW011726 EW011728 EW011730 EW011750 EW011753 EW011757 EW011769 EW011770 EW011782 EW011802 EW011839 EW011911 EW011912 EW011913 EW011914 EW011916 EW011918 EW011940
*WASTEWATER DISPOSAL	(1)	EW011555
*WASTEWATER TREATMENT	(77)	EW011347 EW011351 EW011445 EW011526 EW011554 EW011555 EW011575 EW011576 EW011577 EW011578 EW011579 EW011580 EW011584 EW011585 EW011594 EW011596 EW011602 EW011606 EW011607 EW011609 EW011610 EW011611 EW011613 EW011614 EW011615 EW011616 EW011617 EW011618 EW011619 EW011620 EW011621 EW011622 EW011623 EW011624 EW011625 EW011626 EW011627 EW011628 EW011663 EW011665 EW011667 EW011672 EW011676 EW011697 EW011698 EW011699 EW011700 EW011701 EW011728 EW011734 EW011737 EW011741 EW011758 EW011759 EW011777 EW011783 EW011785 EW011786 EW011788 EW011804 EW011807 EW011808 EW011856 EW011866 EW011885 EW011907 EW011908 EW011909 EW011910 EW011923 EW011926 EW011928 EW011929 EW011930 EW011931 EW011940 EW011946
WASTEWATER TREATMENT	(3)	EW011572 EW011592 EW011797
*WASTEWATER UTILITIES	(2)	EW011930 EW011931
*WATER	(12)	EW011560 EW011564 EW011565 EW011673 EW011716 EW011733 EW011745 EW011784 EW011795 EW011857 EW011917 EW011952
WATER	(2)	EW011705 EW011746
*WATER ANALYSES	(1)	EW011746
*WATER ANALYSIS	(5)	EW011560 EW011563 EW011673 EW011745 EW011784
*WATER AUGMENTATION	(1)	EW010863
*WATERBORNE DISEASE	(1)	EW011840
*WATER CHARACTERISTICS	(1)	EW011560
*WATER CODE	(1)	EW011733
*WATER CONSERVATION	(3)	EW011347 EW011582 EW011702
*WATER DEMAND	(1)	EW010863
*WATER DISCHARGES	(1)	EW011844
*WATER DISTRIBUTION	(16)	EW011442 EW011686 EW011687 EW011688 EW011727 EW011729 EW011822 EW011823 EW011824 EW011825 EW011826 EW011835 EW011840 EW011873 EW011874 EW011936
*WATER HAMMER	(1)	EW011822
*WATER MAINS	(3)	EW011686 EW011687 EW011688
*WATER NETWORK ANALYSIS	(1)	EW011729
*WATER POLLUTION	(6)	EW011136 EW011566 EW011739 EW011800 EW011851 EW011922
WATER POLLUTION	(3)	EW011785 EW011786 EW011952
*WATER POLLUTION CONTROL	(18)	EW011347 EW011525 EW011683 EW011730 EW011761 EW011764 EW011765 EW011773 EW011774 EW011794 EW011801 EW011804 EW011850 EW011856 EW011872 EW011922 EW011927 EW011934

*WATER PRESSURE (2) EW011686 EW011687

*WATER QUALITY (53) EW011107 EW011556 EW011557 EW011558 EW011559 EW011563 EW011568
EW011580 EW011586 EW011587 EW011588 EW011594 EW011675 EW011684 EW011703
EW011704 EW011707 EW011712 EW011721 EW011722 EW011724 EW011725 EW011735
EW011736 EW011738 EW011739 EW011744 EW011761 EW011762 EW011765 EW011776
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EW011804 EW011821 EW011825 EW011836 EW011841 EW011850 EW011865 EW011885
EW011922 EW011926 EW011929 EW011932 EW011945 EW011952

WATER QUALITY (1) EW011595

*WATER RATES (6) EW011598 EW011599 EW011600 EW011601 EW011602 EW011603

*WATER RECYCLING (1) EW011582

*WATER RESERVOIRS (1) EW011727

*WATER RESOURCES (28) EW010863 EW011107 EW011112 EW011417 EW011525 EW011572 EW011579
EW011581 EW011582 EW011587 EW011597 EW011684 EW011705 EW011708 EW011722
EW011732 EW011733 EW011735 EW011736 EW011738 EW011781 EW011785 EW011786
EW011789 EW011850 EW011865 EW011932 EW011952

WATER RESOURCES (2) EW011771 EW011772

*WATER REUSE (7) EW011571 EW011572 EW011582 EW011676 EW011701 EW011733 EW011885

*WATER SCIENCE AND TECHNOLOGY BOARD (1) EW011587

*WATERSHEDS (1) EW011761

*WATER STABILIZATION (1) EW011835

*WATER STORAGE (2) EW011727 EW011828

*WATER SUPPLY (44) EW010863 EW011442 EW011570 EW011582 EW011597 EW011598 EW011599
EW011600 EW011601 EW011602 EW011603 EW011605 EW011631 EW011632 EW011722
EW011727 EW011729 EW011733 EW011735 EW011736 EW011738 EW011752 EW011754
EW011778 EW011783 EW011793 EW011817 EW011818 EW011821 EW011824 EW011825
EW011826 EW011828 EW011838 EW011840 EW011850 EW011865 EW011872 EW011874
EW011915 EW011936 EW011940 EW011941 EW011952

WATER SUPPLY (1) EW011757

*WATER SYSTEMS (2) EW011599 EW011601

*WATER TANKS (1) EW011727

*WATER TREATMENT (45) EW011198 EW011417 EW011418 EW011445 EW011446 EW011447 EW011526
EW011563 EW011565 EW011574 EW011576 EW011584 EW011605 EW011684 EW011702
EW011721 EW011723 EW011724 EW011725 EW011752 EW011754 EW011768 EW011783
EW011785 EW011786 EW011796 EW011805 EW011818 EW011821 EW011823 EW011825
EW011826 EW011827 EW011835 EW011840 EW011864 EW011885 EW011930 EW011931
EW011936 EW011937 EW011938 EW011939 EW011941 EW011945

WATER TREATMENT (1) EW011757

*WATER USE (1) EW016663

*WATER UTILITIES (4) EW011721 EW011760 EW011930 EW011931

*WATERWORKS (1) EW011442

BEST COPY AVAILABLE

*WEED CONTROL	(1)	EW011870
*WEIRS	(1)	EW011444
*WELLS	(1)	EW011754
*WETLANDS	(8)	EW011585 EW011614 EW011711 EW011748 EW011771 EW011772 EW011809 EW011866
*WORLD PROBLEMS	(3)	EW011793 EW011945 EW011952
*WRITING	(1)	EW011718
ZINC	(1)	EW011823